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ABSTRACT

This report is the final end-of-grant report of the Southeast Eisenhower Regional Consortium for Mathematics and Science. States in the Consortium include Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina. The report summarizes the Consortium's outcomes over the 5-year period from 1995 to 2000. The outcomes of activities designed to meet six objectives are described. The objectives include regional collaboration, a plan for priority setting and service delivery, provision for technical assistance and training, and promotion of the use of informal science education entities. Appended are: GPRA Indicators (Revised 2000); Interview Protocol, 2000; Levels of Services and Phase Impact Model; Decision Making Rubric; A Typical Sample of "Features and Activities" of the Academy; Intensive Sites Services; and Academy Session VII--February 2000. (MM)

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SOUTHEAST EISENHOWER REGIONAL CONSORTIUM
for
MATHEMATICS AND SCIENCE EDUCATION
@ SERVE

Five-Year Summative Report
October 1, 1995 through September 30, 2000

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Introduction

The Southeast Eisenhower Regional Consortium for Mathematics and Science at SERVE (Consortium hereafter in this report) is one of 10 regional consortia funded by the U. S. Department of Education, Office of Educational Research and Improvement. The SERVE region includes six southeastern states: Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina. The 10 consortia and the Eisenhower National Clearinghouse (ENC) provide support to improve mathematics and science education across the nation.

The Consortium is operated by SERVE, affiliated with the University of North Carolina at Greensboro. SERVE has operated the Consortium since 1992 and this final end-of-grant report provides a summary of the outcomes and impacts of the Consortium program from October 1, 1995 through September 30, 2000. Major sources for the report are four previous annual performance reports:

- 1995-96 --- covering October 1, 1995 – April 17, 1996
- 1996-97 --- covering April 17, 1996 – March 25, 1997
- 1997-98 --- covering March 25, 1997 – April 15, 1998
- 1998-99 --- covering April 16, 1998 – January 31, 1999

In addition to the reports referenced above, new results emerged from data collection processes and analyses employed after January 31, 1999. The results from the Interim Assessment in 1998 were also utilized as appropriate. Two of the four reports covered 12-months period; two others were seven months and nine months. These reports complied with requests of the funding agency in order to meet grant-award deadlines. The last performance report for 1999-00 is covered within this 5-year summative report.

This report summarizes the progress in achieving the goals and objectives of the program and it consists of four major sections: Overview, Implementation and Management, Outcomes and Impacts, and Conclusions and Lessons Learned. As suggested by the US DOE, the assessment criteria—implementation and management, quality and utility, and outcomes and impact—are addressed as appropriate in all four sections of this summative report. Section I introduces an overview of the project with its goals and objectives, priorities of work, underlying assumptions and evaluation design. Section II describes the implementation of the program activities with information on accomplishments. Section III presents outcomes and impacts with particular attention to quality and utility of services and products. Finally, Section IV offers conclusions and lessons-learned from our work and how they continue to shape our work in mathematics and science reform.

Section I: Overview

The Regional Consortia were reauthorized under the Improving America's Schools Act of 1994 (Public Law 103-382), and the consortia were expected to play a major role in coordinating mathematics and science education resources for the states and local agencies. In addition, the Regional Consortia were designed as a key strategy to enhance national collaboration among federal agencies working in the area of mathematics and science reform. The authorizing statute, Public Law 103-382, specified three purposes for the consortia:

- To coordinate mathematics and science resources within the region;
- To disseminate exemplary mathematics and science educational instructional materials; and

- To provide technical assistance for the implementation of teaching methods and assessment tools for use by elementary and secondary school students, teachers, and administrators.

Toward that end, the Consortium's task was to link to the work of key stakeholders in the region while designing a strategic program that addressed both the priorities of the U. S. Department of Education (DOE) and the regional needs for specific services and products.

Basic Principles and Assumptions of the Consortium

When the Consortium charted the course to improve mathematics and science teaching and learning in the southeast in 1995, it began by making connections with a variety of stakeholders who had vested interest in promoting changes in the teaching and learning mathematics and science for all students. These connections were very important for the notion of facilitating systemic change at various levels. Further, the Consortium used the relationships built with key partners to leverage and coordinate resources across the region. As contextual conditions changed, the strategy was to continue to weave a web of connections/partnerships that helped to achieve the goals/objectives of this Consortium.

The scope of work for the Consortium is anchored to some basic principles that are important to improving mathematics and science education for all children.

- Systemic reform in mathematics and science education requires support for change at all levels of an educational entity—administrators, teachers, parents, community-based businesses, scientists, mathematicians, etc.
- Equity matters. All students can learn meaningful mathematics and science. The conditions for making this happen are highly dependent upon effective leadership, effective teaching, and high expectations for students and teachers.

- Teachers are critical links to quality mathematics and science learning. Because teachers are expected to play a key role in providing quality-learning experiences for students, they must be the focus of reform initiatives.
- Partnerships are key to our work. With so many stakeholders and with so many needs to meet, strategic partnerships must play a key role in linking to significant interests across the region.
- Productive change is the continuous search for understanding. It is important for all players to understand processes of change and the complexity that accompanies working on a reform agenda in mathematics and science.

Major Partnerships/Audiences

The Consortium targeted members from several key audiences/entities for its work: state and regional organizations, informal science agencies, schools and networks, NSF (National Science Foundation) systemic initiatives, mathematics and science coalitions, business and community-oriented organizations. Targeting state and regional leaders was key to its work because these leaders could inform the Consortium about regional priorities and their visions of mathematics and science reform in their particular agencies. Also, these constituents were the key to critical networks that became a strategic approach for disseminating information and dialoguing about critical issues. In a similar vein, teachers and other practitioners were targeted because they were in the position to make changes to benefit students. Therefore, a considerable focus for long-term technical assistance was activities that involved teachers or those who support teachers.

Evaluation Design

The evaluation plan for the Consortium was designed to generate two forms of information: formative data to guide the planning and implementation of project activities and summative data to determine the results and impacts of the project activities.

Evaluation Questions. In previous reports, a great deal of attention has been given to the details of activities. In this summative evaluation, the key questions of focus are related to the Assessment Criteria. Thus, 2 major evaluation questions guide this report:

1. **To what extent were project activities implemented?**
    - Did the project meet its goals and objectives?
2. **To what extent did the participants benefit from the project's products and/or services?**
    - How did the Consortium's work contribute to the increased knowledge or understanding of regional issues in mathematics and science education?
    - What impact did the Consortium activities have on its clients?

Data Collection Methods. Throughout the second grant cycle both quantitative and qualitative data have been gathered and analyzed for a range of Consortium activities to help revise and readjust our plan of operation. In addition to our continuous evaluation, the inclusion of GPRA indicators (Appendix A) in 1997-98 provided further objectives to guide the Consortium's activities. Procedures employed for collecting data for formative and summative evaluations are briefly described:

- Cross-Consortia Descriptive Database System (CCDDS). A computer database was designed during 1997-98 for recording participation in all phases of the project. This database was used to generate reports about the project. Documentation of activities

completed by Consortium staff included an activity description form that is used nationally to quantify categories of service, content focus of the activity, method of interaction, number of participants, participants' affiliation, collaborators, and duration of the activity. This documentation was collected quarterly, summarized, and analyzed. Findings were reported annually in Network and Consortium's annual performance reports.

- Cross-Consortia Customer/Client/User Survey. The Eisenhower Mathematics and Science Consortia and Clearinghouse ($E=MSC^2$) Network conducted a participant survey to provide additional data on the impact of the Consortia and Clearinghouse work. The survey posed questions about technical assistance, dissemination and network building. Each member of the Network sent a package (cover letter, survey, self-addressed, stamped return envelope) to a sample of participants involved in customized, intensive, and/or state-specific activities. Data obtained from this procedure formed the basis for yearly Network and Consortium's performance reports.
- Cross-Consortia Client Interview (2000). A client interview protocol (Appendix B) was administered on relatively smaller group of clients in the last year of the second grant cycle (1999-00) instead of yearly Cross-Consortia Customer/Client/User Survey. The objective of this protocol was to collect clients' in-depth perception on our activities and their impacts and outcomes. The resulting data provided rich contextual information used in the cross-consortia network report as well as in individual performance reports.

- Participant Feedback. Participant feedback was obtained (through a variety of written surveys) from meetings, workshops, and institutes funded by the Consortium. This information was collected and reported, and used to judge the success of activities and to plan future Consortium activities.
- Focus Groups/and Interviews. The Consortium used focus groups and individual interviews as important strategies in formative program evaluation. Detailed feedback concerning program operation and effectiveness of Consortium activities in meeting identified needs emerged from these strategies. This process not only provided rich information about activities but also added state perspectives to on-going projects and future plans.

In summary, for the second grant cycle, the Consortium designed a plan for fully implementing its program in an effective and efficient way. Evaluation was a built-in criterion for each major Consortium project. In addition to the above strategies and instruments, the Consortium's evaluator continuously provided feedback for each project; convened meetings with the director and program specialists as needed; performed field visits to gain first-hand experiences; and presented evaluation results in internal and external forums.

Section II: Implementation and Management

The plan of operation for the Consortium was designed based on the need to collaborate with major stakeholders, to coordinate and leverage resources and to build significant networks to facilitate change. Toward this end, the Consortium has been able to respond well to regional demands through a technical assistance plan that includes long- and short-term services. This plan consists of three components: consultative services (single-event responses that emerge

from the field and are in concert with the mission of the Consortium), the Technical Assistance Academy for Mathematics and Science Services (the Academy—a develop-the-developer model for staff developers and teacher leaders) and Intensive services (long-term projects focusing on enhancing teacher change and student achievement). In the previous annual performance reports (95-96, 96-97, 97-98 and 98-99), the Plan of Operation was included to provide a visual display of the overall components of the consortium's work. Similarly, the Plan of Operation, presented in Figure I, is shared here to provide a review of the major activities for 1995-2000. A new feature in Figure I is the addition of categories on expected levels of services and phases of impact (Appendix C). The design, presented in Figure I, emerged from the basic principles and assumptions about working with school discussed in the overview. Another design factor was the desire to use relevant research to inform the project in ways that promoted quality and utility. In this section, the focus is on major themes of "our way of work" and procedures related to implementing and managing the Consortium program.

Figure 1: Plan of Operation for the Eisenhower Consortium @ SERVE (1995-2000)

Consortium Objectives	Task/Activity 1995-00	Expected Level of Service/Impact	Determined Phase of Impact
A. Regional Collaboration			
To collaborate with others within the region involved in systemic reform of math/ science education.	A.1 Regional Coordinating Board	Level 1 & 2	Level 2
	A.2 State Connections	Level 1 & 2	Level 2
	A.3 Special Issues Forums	Level 1 & 2	Level 2
	A.4 Reaching Out to the Public Activities Aimed at Parents	Level 1	Level 1
	A.5 Enhancing the Work of Others	Level 1 & 2	Level 2
	A.6 Convening State Eisenhower Coordinators & State Leaders	Level 1 & 2	Level 2
	A.7 Communicating with States	Level 1 & 2	Level 2
B. Plan for Priority Setting and Service Delivery			
To develop a plan that establishes priorities for services provided by the Consortium.	B.1 Priority Setting	N/A	N/A
	B.2 Plan for Levels of Service	N/A	N/A
	B.3 Monitor Program Priorities	N/A	N/A
	B.4 Monitoring Impact	N/A	N/A
C. Technical Assistance and Training			
To provide technical assistance and training to educators.	C.1 TAAMSS—The Academy	Level 3, 4, & 5	Level 4
	C.2 Consultative Services	Level 1 & 2	Level 4
	C.3 Intensive District Support	Level 3, 4, & 5	Level 4
D. Promoting the Use of Informal Science Education Entities			
To promote the use of informal education entities	D.1 GYSTC / Adventures in Science	Level 1 & 2	Level 2
	D.2 ASTC	Level 1 & 2	Level 2
E. National Collaboration with the Eisenhower National Clearinghouse and the Consortia			
To collaborate with the ENC and other consortia in identifying exemplary programs in mathematics and science.	E.1 ENC Demonstration Site	Level 1 & 2	Level 2
	E.2 Identifying Promising Practices in Math & Science	Level 1 & 2	Level 2
	E.3 Disseminating Promising Practices	Level 2, 3, & 4	Level 4
	E.4 Consortia / Clearinghouse Directors and Subcommittee Meetings	Level 1 & 2	Level 2
	E.5 Consortium and Laboratory Coordination	Level 1 & 2	Level 2
F. Evaluation Activities: Outcomes and Impact			
To collect data on Consortium activities, including impact data.	F.2 Documentation	N/A	N/A
	F.3 Focus Groups	N/A	N/A
	F.4 Participant Feedback	N/A	N/A

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The Consortium's Way of Work

The regional consortia are very modestly funded; consequently, there is a great need to design a high quality program, which can be managed effectively and efficiently. To that end, collaboration became a way of work for a small staff of mathematics and science specialists. Collaboration (Tasks A, D, and E in Figure 1) was a widespread phenomenon in all our work in the region. It was the primary means by which the Consortium helped to address needs and priorities in the region.

During the grant period, the Consortium engaged in a wide range of stakeholders in each regional state, mostly drawn from the categories of organizations such as: Local and State Education Agencies, informal education entities, NSF Systemic Initiatives, Institutions of Higher Education, state and federal agencies, professional mathematics and science organizations, and business and community. The benefits of collaboration and networking included the leveraging of resources. In addition, these processes increased the chances for scaling-up the work of the Consortium to southeast clients. The Regional Coordinating Board (RCB), the National Eisenhower National Network of Eisenhower Regional Consortia and the Clearinghouse (Eisenhower Network), and state connections were major structures for national and regional collaboration and networking.

The Regional Coordinating Board (RCB). A twenty-six member (four per state and two at-large) Regional Coordinating Board serves as an important resource for the Consortium. A primary function of the Board is providing guidance in setting directions and priorities for the Consortium. In addition, the Board is a first-line network that assists in linking the Consortium to other key reformers in the region. The Board is a major partner to the Director who relies on members for key information regarding the individual states. Ultimately, this group continues to

spread the word about the Consortium's mission. There are two meetings per year (February and September). At these meetings, board members give advice on prioritizing needs and the use of resources. In addition, they have opportunities to gain insight into Consortium projects and activities. The Board chair was a vital part of the interim review process at OERI in June 1998.

During this grant period, the RCB was instrumental in assisting the Consortium to develop a decision-making process that guides technical assistance planning and responses to the field. The resulting checklist (Appendix D) emphasizes the need to collect data in order to make the best decisions about level and intensity of services and/or support.

The Consortium gives high priority to entities serving traditionally underserved and underrepresented students. Across all of the Consortium's services, there is a concerted effort to provide quality-learning opportunities to clients in rural, urban and suburban schools but high needs schools and initiatives are of the highest priority. The Board is very committed to this issue and is very forthright in helping the Consortium to stay the course in regard to the selection of intensive sites and the general distribution of services across the six-state area. A newsletter, *News and Notes*, is published periodically as a means of keeping the members of the RCB informed about issues and activities of the Consortium.

State Connections. The Consortium has been able to work closely with states to facilitate their mathematics and science reform agenda. In each state, key stakeholders work with us in many ways to inform us of key needs and state priorities. Consortium Program specialists communicate on a regular basis with State Department of Education mathematics and science personnel and other key curriculum leaders. Each year, key state leaders are brought to the February Regional Coordinating Board meeting to engage in dialogue about issues related to mathematics and science. In this meeting, an effort is made to identify needs and priorities,

including gaps in resources and initiatives that might accelerate reform in the region. In addition, the Southeast Eisenhower Regional Consortium sponsored special issue forums, using the convening strategy to break through bureaucratic boundaries and bring together people who share common interests. These forums increased collaboration within the region by raising public awareness of systemic reform in mathematics and science. Another strategy for increasing collaboration within the region was to increase the public's awareness of systemic reform in mathematics and science, so that public pressure could support and encourage collaborative efforts.

The Eisenhower Network. The Southeast Eisenhower Regional Consortium at SERVE built on its experience of working with the National Network of Eisenhower Regional Consortia and the Clearinghouse (The Eisenhower Network). The purposes of this network are the following: (1) to facilitate communication among the Consortia and the Clearinghouse, avoiding duplication, sharing resources, and creating a stronger national voice; (2) to coordinate the development of technological delivery media with the National Clearinghouse and other national agencies as appropriate; (3) to assure the collection of consistent information for documentation and evaluation of the consortia as a federated strategy; and (4) to assure a strong focus on equity issues in all consortia work. The operating mechanism for achieving these intents was a committee/task force comprised of the consortia directors, the director of the Eisenhower Clearinghouse, and a representative from OERI. Subcommittees were established to deal with the issues of communication, and evaluation. These subcommittees designed collaborative activities to further the work of the Eisenhower Network.

The directors convened quarterly each year to share their work and to discuss cutting-edge ideas relevant to our work. In many instances, the group met with representatives of

national groups such as NCTM (National Council of Teachers of Mathematics), NSTA (National Science Teachers Association), AAAS (American Association for the Advancement of Science), and NSF projects. The Consortium Director was the Co-Chair of the Eisenhower Network group during the 1999-2000 year.

The Consortium Director and the evaluation specialists have been actively involved in the Evaluation Committee, participating in calls, meetings and special projects. This committee develops and implements the CCDDS and client surveys, which resulted in the national reports for the Eisenhower Network program.

Technical Assistance and Training

Technical assistance is the heart of the Consortium's work (Task C in Figure 1). From early work in the region, it was easy to discern that being strategic was a necessity in order to add value to the reform that was going on in the region. From the work of Ely and Huberman (1994) and Fullan (1993), key ideas were acquired and they informed the foundation for a service delivery continuum. The basic tenet accepted was that "dissemination is not distribution." Considerable effort was made to connect much of the technical assistance to the dissemination of new products and resources. The framework for the service delivery continuum is a modified version of Ely and Huberman's goals of dissemination (spread, choice, exchange, implementation) and Kirkpatrick's (1977) evaluation targets (delivery, knowledge, use, impact). This framework links with the Consortium's evaluation model which focuses on levels of impact (one-time consulting or long-term training) and their expected outcomes (heightened awareness or institutional change). The service provided intense, focused training and on-going, on-site help necessary for positive lasting change. The Consortium believed that the best investment of its limited resources was in capacity building. Such endeavors were managed under projects

such as Consultative Services, the Technical Assistance Academy for Mathematics and Science Services (The Academy), and Intensive Sites.

Consultative Services. The Consortium created a category of service that is responsive to the region for short-term needs for technical assistance. Consortium staff provided services to schools to meet a variety of needs through one-on-one consultation and collaboration on a particular product or event, or through on-going involvement in planning, production, or implementation activities. In some instances, specialists worked alone and in others they worked as a team to provide customized services that were a part of special projects or through special requests that met the Consortium's criteria for service.

Over the five years, the Program Specialists for the Consortium:

- Provided technical assistance and current information to state leaders, schools, and districts attempting to restructure mathematics and science education;
- Provided coordination for state professional development efforts, including state- and privately-sponsored summer institute programs and Eisenhower activities at the state and district level;
- Provided assistance within states to facilitate collaboration among the various stakeholders involved in improving mathematics and science education;
- Demonstrated the Eisenhower National Clearinghouse to schools, districts, pre-service education classes and other educators or organizations in the region;
- Maintained on-line computer communication throughout the region through SERVE-Line (1995-1996) and our website thereafter.
- Provided workshops and conferences on the Third International Mathematics and Science Study; and

- Conducted middle school mathematics program audits for selected schools in each SERVE state.

In many instances, the above services were provided on a one-time basis. These services often enabled us to build relationships with clients for future intensive work but most often they simply met a basic needs of the clients. During this grant period, the Consortium provided services to more than 5000 clients in this category.

The Academy. The cornerstone of the Consortium's work in professional development during this grant period was the Technical Assistance Academy for Mathematics and Science Services (the Academy). The goal of the Academy was to build capacity for the improvement of mathematics and science teaching and learning through a develop-the-developer model of professional development that would benefit regional educators and their audiences. The Academy initiatives introduced educators from throughout the southeast to the latest research materials, emerging resources, and training techniques available. It offered participants the opportunity to practice newly acquired skills in a safe supportive environment, before engaging colleagues back home.

From 1995-2000, the Academy was implemented involving seventy-five selected educators from across the southeast. These educators were affiliated with the Academy in two phases. Phase I included four Academy sessions for a period of 3 ½ days long (approximately 96 hours). The overall theme for the Academy was "The Wins of Change." The major content training materials included the resource, *Facilitating Systemic* Change in Science and Mathematics Education: A Toolkit for Professional Developers. The format of each Academy session included topical content from the Toolkit presented by the staff and/or consultants, state

team meetings, opportunities for reflection, planning for future meetings, and informal networking. Appendix E presents a typical sample of features and activities of the Academy.

Phase II began in May 1997 and forty-five of the seventy-five members in Phase I opted to continue with the more advanced strategies and techniques. Phase II included three sessions for a period of 3 ½ days long (approximately 72 hours). An added feature of this phase was on-site observations by Consortium staff. In each phase of the project, participants reported impact data back to the Consortium.

Intensive Sites. The intensive site activity provided a structure in which schools and/or districts were able to access support, encouragement, quality learning opportunities, and new skills essential to enhancing teachers' beliefs and practices. The goals of this type of customized service were to broaden the impact of targeted services, accelerate the rate of change, and increase the effectiveness of improvements in mathematics and science education in the district through comprehensive systemic change. The sites were selected based on critical issues in the southeast region (e.g., poor student achievement, low SES, achievement gaps, and inadequate resources).

During this period, the Consortium worked with several sites that made reasonable progress with teacher professional development and the general readiness for change. Continuous support was provided to four sites: (1) Hialeah Feeder Pattern, Dade County, Florida, (2) Elementary Science Education Partners (ESEP) in Atlanta, Georgia, (3) Booneville Middle School, Booneville, Mississippi, and (4) Maysville Initiative, Mobile, Alabama. Appendix F provides a summary of Intensive Sites at SERVE.

Dissemination of Exemplary Materials

The Consortium provided current information to states about standards in math and science by brokering information from such organizations as the National Council of Teachers of Mathematics (NCTM), the National Science Teachers Association (NSTA), the American Association for the Advancement of Science (AAAS), the Mathematical Sciences Education Board, the Eisenhower National Clearinghouse (ENC) and others. A primary tool for disseminating exemplary and programs and practices in mathematics and science was the annual 2-½ day Promising Practices Leadership Institute attended by invited school/district teams consisting of three to five people. From 1996-1998, more than 500 educators participated in this activity.

The Consortium designed, developed and produced print products for dissemination. The *Common Denominator*, a biannual newsletter, focuses on practical classroom strategies and current issues in mathematics and science. During this grant period, the following topics were covered: professional development, informal science, collaboration, and meaningful mathematics.

In collaboration with the ENC, the Consortium has established Access Centers across the six states. These centers spread the word about the missions of the Consortium and ENC throughout the region. They demonstrate the ENC Online and distribute ENC and Consortium products. In most instances, theses centers are housed at agencies that already focus on mathematics and science.

The ENC Demo-Site provides opportunities for educators to preview ENC online. It also provides a variety of support services to educators in the metropolitan Atlanta area. These

services included staff development for educators (including a teacher resource center) and activities for students, and the distribution of ENC and Consortium materials.

The Consortium provides web-based resources to clients who have access to the World Wide Web and electronic mail. Over the grant period, the site offered publications, hot links to important issues, and an NSF directory of products in the southeast.

Quality and Utility of Services and Products

The Consortium continues to stress the need for quality products and services that are useful to clients. As a part of the management process, a quality review/assurance process has been established and implemented for products. This process includes external review by subject-area experts and by practitioners from appropriate target audiences. Internally, the Quality Assurance (QA) process of our parent organization, SERVE, guides the Consortium.

A senior level staff person has responsibility for coordinating the quality of technical assistance. As a team of mathematics and science content members, we also depend upon each other as related content accuracy and appropriateness. Client feedback through surveys and interviews is another way of confirming/validating the quality of products and processes. The Consortium strongly believes in disseminating useful products and services. Toward that end, utility is a criterion for most of the products and services. It is a part of the quality assurance process. Other criteria include transferability, clarity in directions, and cost.

The Southeast Eisenhower Regional Consortium has been able to track its projects and determine the level of outcomes and impacts on clients in the southeast through the use of a robust evaluation plan. The outcomes and impacts of our program, including quality and utility, as perceived by clients, are summarized in Section III.

Section III: Outcomes and Impacts

Section III describes the outcomes and impacts of the Consortium on clients, particularly on groups such as professional development providers, teachers, administrators, and collaborators. This section will first provide a general view of the impact of services provided to the region; secondly, it will address the quality and utility of products and services that are inclusive elements of outcomes and impacts; and finally, it will describe outcomes and impacts in more qualitative details.

During the grant period (1995-00), the Consortium's activities were classified into four major service categories: (1) Training, (2) Technical Assistance, (3) Dissemination, and (4) Network Building. Activities were further delineated by focus areas: program and curricula, professional development, collaboration, standards, assessment, equity, curriculum framework, technology, community outreach, etc. Overall, the Consortium was able to provide services or disseminate products to 148,214 clients in the southeast region during this time. Table 1 provides a summary of the total number of clients who benefited from Consortium services.

Table 1

Participants Covered by the Consortium (1995-00)*

Year	Number of Participants	Percent
1995—96	14,456	10%
1996—97	14,469	10%
1997—98	37,454	25%
1998—99	37,432	25%
1999—00	44,403	30%
Total for 1995-00	**148,214**	**100%**

Source: Annual Reports (1995-99), CCDDS 1997-00, and Quarterly Reports

* Includes large scale dissemination

It is important to note that the percentage from year 1 and 2 to year 3 is increased by 15%; and from year 3 and 4 to year 5 by another 5%. These transition-points in year 3 and year

5 clearly indicate that the Consortium has been able to cover more clients as it approached the end of the grant period.

Technical Assistance and Training

Technical assistance/training activities cover a wide range of services providing short- and long-term professional development as well as networking and collaboration, including dissemination of resources. According to the CCDDS (1997-2000), 71% of the customized services of the Consortium were provided to 71% of the participants/clients (Table 2).

Table 2
Service Categories and Number of Participants
[for Customized Activities only]

		Activities		Participants	
	Service Categories	#	%	#	%
1	Training	75	30%	3,524	33%
2	Technical Assistance	101	41%	3,967	38%
3	Dissemination	39	16%	2,409	23%
4	Network-Building	32	13%	668	6%
	Total	247	100%	10,568	100%

Source: CCDDS 1997-00

Of the 71% participants, 59% were engaged in intensive (12 or more hours) activities during 1997-00 (Table 3).

Table 3
Distribution of Activities and Participants by Length of Activity Period
[for Technical Assistance and Training only]

	Reported Length of Activity in # of Hours	Activities		Participants	
		#	%	#	%
1	0—1	4	2%	59	1%
2	02—06	90	51%	2,366	32%
3	07—11	14	8%	619	8%
4	12—60	62	35%	3,318	44%
5	Greater than 60	6	3%	1,129	15%
	Total	176	100%	7,491	100%

Source: CCDDS 1997-00

Along with quantity, the Consortium has also maintained a high standard in quality of the technical assistance/professional development (PD) trainings. Table 4 reflects the quality of the technical assistance as perceived by the clients on the 1999 survey.

Table 4

Alignment of Professional Development/Training and Technical Assistance with Standards and High Quality Curriculum (n=80)

Statements	Not at all [a]	Slightly [b]	Moderately [c]	Extensively [d]	Positive response [c+d]	N/A*
The content of the professional development/training and/or technical assistance received was explicitly aligned with state and/or national standards.	00	00	14%	80%	**94%**	6%
The content of the professional development/training and/or technical assistance received was explicitly aligned with high-quality curriculum.	00	1%	11%	81%	**92%**	6%
The professional development/training and/or technical assistance received was focused on implementation of practices to attain high standards.	1%	1%	8%	85%	**93%**	5%

Source of Data: Participant Survey, October 1999

* Includes no response and/or not applicable

The table above shows that more than 90% of the clients indicated that the PD trainings had been moderately-to-extensively aligned with state and/or national standards and high quality curriculum. In the same vein, the clients (93%) also assured that the training focused on the implementation of practices to attain high standards.

Clients utilized the technical assistance/ PD trainings in various ways. They reported overwhelmingly that the Consortium-sponsored activities had not only high quality but also had high utility. Table 5 summarizes the responses from clients on the 1999 survey.

Table 5
Impact of Professional Development/Training and/or
Technical Assistance on Clients (n=80)

As a result of Professional Development/Training and/or Technical Assistance Clients were able to:	Not at all [a]	Slightly [b]	Moderately [c]	Extensively [d]	Total Positive response [c+d]	N/A*
Improve instructional or job-related practices/ behavior in mathematics and/or science.	00	3%	21%	70%	**91%**	6%
Improve ability to meet the needs of at-risk, under-represented, and/or under-served students in mathematics and/or science.	1%	8%	25%	58%	**83%**	9%
Improve student engagement in mathematics and/or science.	00	1%	21%	71%	**92%**	6%
Enhance student performance in mathematics and/or science.	00	3%	26%	63%	**89%**	7%

Source of Data: Participant Survey, October 1999
* Includes no response and/or not applicable

Again, it is quite evident from Table 5 that PD trainings provided by the Consortium had positive impact on participants' jobs (91%), met the needs of at-risk, under-represented students (83%), improved students' engagement (92%), and enhanced students' performance (89%). The results of this table are reinforced by the open-ended comments made by the clients that will be discussed later in this section.

Networking and Collaboration

To promote and employ networking strategies in the southeast, the Consortium has been a constant resource for the entire region. Of the 247 customized activities, 90% involved one or more collaborators (Table 6).

Table 6
Activities with Collaborators
(for Customized Activities only)

	One or More Collaborator?	Activities		Participants	
		#	%	#	%
1	NO	25	10%	869	8%
2	YES	222	90%	9,699	92%
	Total	247	100%	10,568	100%

Source: CCDDS 1997-00

On the FY1998-99 survey, clients were asked to describe the utility of their collaboration with the Eisenhower Consortium at SERVE. Table 7 below reports the result from 50 respondents that answered the five related questions on networking and collaboration.

Table 7

Clients' Benefit on the Collaboration with the Eisenhower Consortium at SERVE (n=50)

	Not at all [a]	Slightly [b]	Moderately [c]	Extensively [d]	Positive response [c+d]
Strengthened relationships among collaborators.	00	4%	28%	68%	**96%**
Increased coordination in providing services.	00	8%	30%	62%	**92%**
Increased access to resources.	00	4%	26%	70%	**96%**
Leveraged resources and efforts for greater impact.	00	4%	28%	68%	**94%**
Assisted you in carrying out your work more effectively.	00	00	36%	64%	**100%**

Source of Data: Participant Survey, October 1999

It is apparent from Table 7 that the respondents (more than 90%) benefited from the networking and collaboration efforts made by the Consortium in strengthening relationships (96%), increasing coordination (92%), increasing access to resources (96%), leveraging resources (94%), and assisting to work more effectively (100%).

Dissemination of Exemplary Materials

The Consortium was a reliable and catalytic source of information for the region, accounting for a considerable number of client contacts. Often times through our general dissemination, products were the first contact with clients. While every effort was made to link dissemination with professional development or other technical assistance activities, this was not always possible. Table 8 provides a summary of the dissemination of products and web-based resources.

Table 8

Dissemination of Exemplary Materials (1995—00)

Year	Number of Dissemination	Percent
1995-96	8,643	9%
1996-97	8,539	9%
1997-98	28,513*	31%
1998-99	21,526*	23%
1999-00	24,726*	27%
Total for 1995-00	91,947	100%

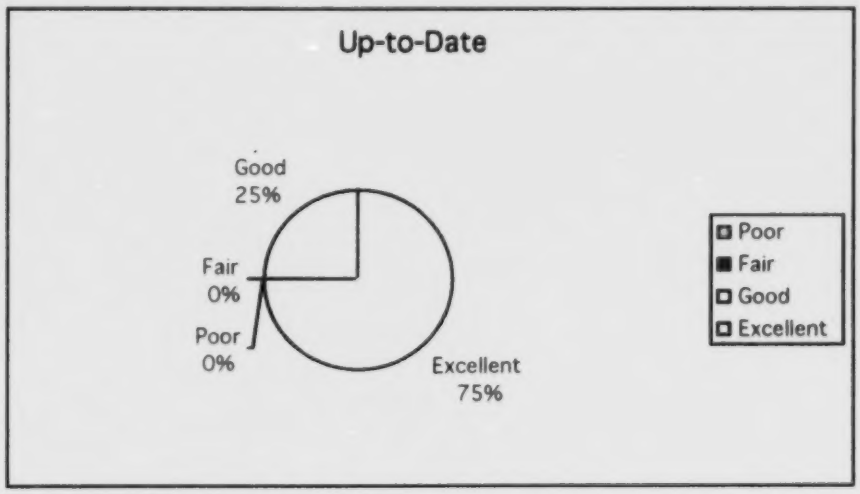
Source: Annual Reports, CCDDS, and Quarterly Reports.

* Includes electronic dissemination.

As evident from this table, inclusion of electronic dissemination robustly increased the total dissemination for years 3, 4, and 5. In other words, downloading information and materials from the Consortium's web sites became more prevalent than print dissemination during 1997-00.

The quality (recency and accessibility) and utility (added value) of such products are exemplified through Figures 2 to 4 that are processed from 1998-99 user surveys.

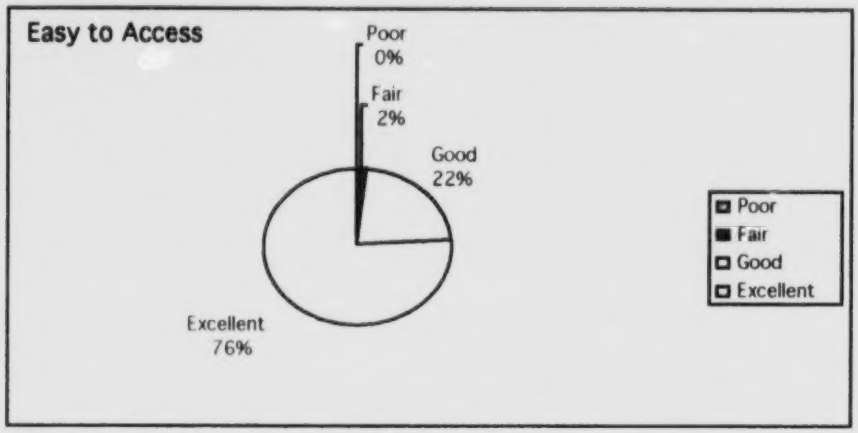
Figure 2: Recency [*n*=50]



Source: Participant Survey, October 1999

With regard to recency, all the materials were rated between "good-to-excellent" by participants (100%) that responded to this question in the survey.

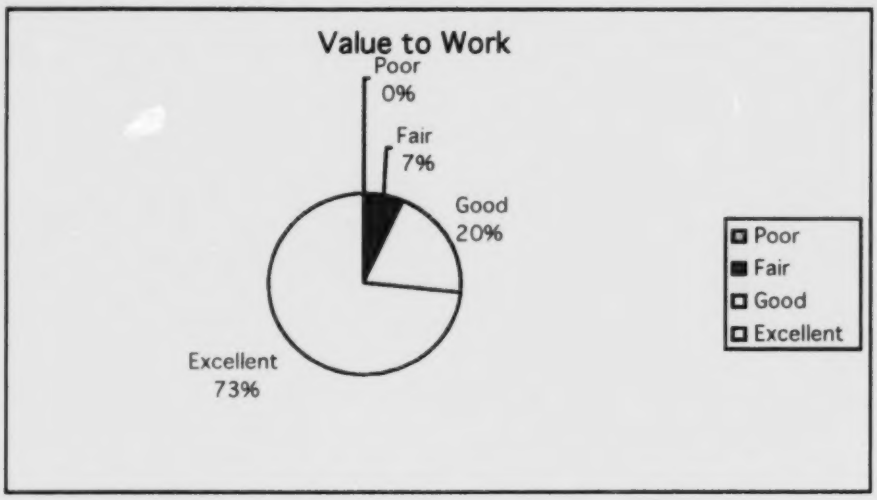
Figure 3: Accessibility [*n*=54]



Source: Participant Survey, October 1999

Figure 3 shows that the clients (98%) rated the accessibility of the materials between "good-to-excellent."

Figure 4: Added Value [*n*=56]



Source: Participant Survey, October 1999

Most importantly, Figure 4 shows that at least for 93% of the clients, the materials added value (good-to-excellent) to their work.

The following three comments made by clients on the 1999 survey further highlight the results from the above figures:

- I had the opportunity to share the TIMSS CD ROM and TIMSS kit videos with all principals in our district; this was motivating and opened the eyes of many who were still allowing texts to drive their curriculum.
- These products [as cited above] have facilitated my work in developing and organizing activities for teacher professional development. This has been important in structuring teacher experiences plus training other teacher leaders to provide professional development.
- The identified products have been used as resources in assisting the district in reforming the Mathematics and Science curriculum. In an effort to exhibit the importance of using hands-on inquiry based teaching strategies, these resources are also reference materials.

Along the same line, on the 1999-00 interview protocol, two Academy members talked about the quality of the materials disseminated as:

- The Academy helped me in getting ideas in alternative assessment, addressing equity issues, and overall transformed me into a trainer. But most important is, we got high quality, up-to-date materials and valuable training and services when we needed them; the Consortium was there, and I hope will be there, at the time of professional development needs.
- SERVE is a wonderful resource for us. Materials and services are first-rate. I couldn't do my job as well if SERVE was not available for collaboration and assistance.

User-Group Impact for Technical Assistance and Dissemination

As mentioned before, this section also delineates outcomes and impacts on the client/user groups, utilizing available quantitative and qualitative data obtained from CCDDS, 1998-99 user surveys, and 1999-00 interview protocols. Extensive quotes from the clients' responses to interviews (1999-00) and surveys (1998-99) further support the results. The selected quotes highlight the overall impact of the Consortium on its clients over the past 5 years around

technical assistance and training, networking and collaboration, and dissemination of exemplary programs and materials.

Impact on Professional Development (PD) Providers. A major portion of the participant data summarized in Table 2 was covered under "develop-the-developer" model initiated by the Academy. According to the report of training activities (1996—2000), the Academy members propagated the training received from the Consortium to approximately 49,000 educators in the southeast region.

These PD providers felt confident in our training and adapted techniques to their own situations. A trainer from Florida (1999 survey) had this to say:

> We model much of our leadership component on what we learn from SERVE staff: e.g., level of commitment and use of videotaped movies for engagement and dialog. We now use a workshop design based on SERVE's model.

Through the Academy, the Consortium has been able to produce a cadre of trainers that provide training in the region to other teachers and educators. One such trainer in Georgia talked about the impact of technical assistance through the Academy:

> As a result of information acquired from the Eisenhower Consortium @ SERVE, extensive professional development training is offered to teachers on using hands-on, inquiry-based strategies in Mathematics and Science.

An Academy participant from Mississippi reflected on the impact of the Consortium and how it enhanced her own career:

> Until I actually became acquainted with the Consortium, I never had the opportunity to attend world quality staff development - things that I could bring back and use in my district and things I could carry with me as I moved from a counselor to a principal and from a small school to a larger school, a package of tools that I could always take with me. I have bits and pieces of all of this training that I use almost every day in what I do.

The Academy stood out as an excellent project during 1995 – 2000. A professional developer described the Academy this way:

> It was my training ground. It was the way I was exposed to nearly every aspect of what I was going to be expected to do. It was really vital. I'll always be grateful to SERVE for my professional development in being able to understand my job helping me work more effectively as a trainer. It exceeded anything I could ever expect because I didn't know that I would be so well prepared to do this particular job as a result of my being in the Academy.

Again, remarks made by clients on the utility of the Academy show a profound impact. Two representative quotes are cited here:

- The Academy in its entirety has been the single most life-changing event in my life as a teacher. I have learned so much and more importantly changed so much. SERVE has truly given me the wings to fly!!! And perhaps most significant of all it has allowed me to impact over 900 students in the past 5 years.
- The Academy has just really, really been a very important part of what I do and has been a very important part of what our classroom teachers or lead teachers do when they do professional development with other people.

More representative sample quotes are cited in Appendix G from the evaluation of the Academy, Session VII held in February 2000.

Impact on Teachers. While the Academy served as a training ground for PD providers, the Intensive Sites services provided technical assistance and training to selected teachers in the region. A focus group discussion with the Booneville Middle School site (Mississippi) revealed the impact of the Consortium in building a successful Environmental Science Center. A teacher in the project recalled:

> I started with SERVE my 1st or 2nd year as a teacher. Now I am in my 9th year. My involvement with SERVE has inspired me to do things I never thought possible. I just

completed National Board certification. My involvement with SERVE has aspired me to be a better teacher.

The coordinator of the project commented on the Consortium's contribution to the project:

> Because of the technical assistance we received from the Consortium in writing grants, we received 5 – 6 grants this year. We received funding from the Environmental Science Center, with your help and Wildlife Habita Incentive Award Grant. With these funds, we built the Gazebo and produced a book with lesson plans written by the teachers for outdoor classroom activities. We replicated some of the lesson plans we got from the Bronx Zoo. Projects with SERVE has given me confidence to try things that we used to think were totally out of our reach.

The coordinator indicated that the project had a positive impact on students and teachers alike:

> The students have researched plants that are native to Mississippi and what is appropriate to plant for the wildlife surrounding the school. All of the students are very proud of the Gazebo and wildlife habitat. The students always want to bring their parents to the Gazebo and show them what they have done. ... We have had several teachers (from other schools in Mississippi) to visit the Gazebo, go back home, write a grant and build one similar to ours. Teachers are beginning to replicate not only the Gazebo, but also the lesson plans for outdoor activities that we wrote. The Gazebo gave us ways to implement alternative teaching methods and assessments. We were able to use what we learned from Nancy McMunn in alternative assessment to measure what our children have learned by being involved with Gazebo activities.

The Maysville Intensive Site in Mobile, Alabama, focused on professional development in mathematics for all of the elementary schools in the Maysville Feeder Pattern. All participants in the focus group agreed on the merits of the Consortium-sponsored workshop and two of them offered the following comments:

- This is a breath of fresh air [It is refreshing to have new ideas in mathematics]. Now that I have internalized the questioning techniques, I can see that the kids really

understand the concepts. Even though I was using manipulatives (when I was teaching the traditional way), I was still telling them the concept. Now I see teachers becoming facilitators; kids become facilitators and begin to ask their classmates, "How do you know that?" Kids understand that there is more than one way to answer a question. Their self-esteem has gone up.

- Math is now everywhere and in everything I do. I question kids all the time now. Kids are involved in problem solving. Kids are being the teacher – by my asking questions. I let them become the investigator. Kid-centered planning – not about what I am going to do. It's about what can I do for the kids to understand the concept and master the skills. This way of teaching reaches every learning style in a non-threatening way. Allow kids to take responsibility for their own learning. The children are motivated.

Impact on Administrators. From the beginning, the Consortium has strongly encouraged the involvement of administrators in leading and supporting reform in mathematics and science. Administrators were directly involved in major projects such as the Academy and Intensive Sites services. Here are three examples (from the 1999-00 Interview responses) of how the administrators were impacted by participating in Consortium activities:

> The technical assistance exceeded my expectations in all possible ways. The training and technical assistance and the materials we got from SERVE were of high quality and most importantly they never failed to support us when we needed anything.
>
> Project Director, Alabama

> Through the Consortium, I have been able to network with other professionals and grow as an instructional leader. I have learned new approaches to staff development and how to utilize technology as a tool for staff development. My teachers have had many opportunities to learn about new programs in math and science. I always encourage them to participate in any program offered through the Consortium because they are always of superior quality.
>
> Principal, South Carolina

The collaboration and networking through the Intensive Site services is well articulated by a regional superintendent, Miami-Dade County Public Schools:

> The consortium has provided a very valuable service to the Miami/Dade County public schools. In the five years that I've been involved with this, you've assisted in coordinating resources, identifying leaders in math and science. You have continued to foster the climate of continuous and positive change in our classrooms. The Consortium also helped this region in providing timely assistance on TIMSS report and continuous help with materials and training.

Impact on Collaborators. To promote and employ networking strategies in the southeast, the Consortium has been a constant resource for the entire region. A member of an Education Foundation in Alabama cited the value of the Consortium in this way:

- Our relationship with SERVE has certainly deepened over the time, but it has also served to strengthen relationships with our other partners. ...We had been included in a lot of regional activities and that has helped tremendously with the network and I think networking is a key need for us in math education, in science education. Linking with other folks who are trying to make substantial improvements is important. SERVE is very strong in developing those networks and nurturing those networks.
- The Maysville initiative is the biggest collaborative effort since I have been here and that's 16 years. Principals are very committed and everything is so organized. Feels like the community believes in the children. It's hard to please everyone, but they are trying. Everyone is organized and sensitive to the needs of the teachers. All collaborators play a role. This is a model collaborative because the Mobile Area Foundation was already a viable organization in the community. [Model established on the principles of effective professional development]. The Foundation laid the groundwork, making it easier for partners to come in.

Four open-ended comments from the 1999 survey are quoted here to show the impact of collaboration on clients who viewed the Consortium as a valuable partner in securing additional resources:

- Collaboration with SERVE helped us get an NSF grant for the Florida Collaborative for Excellence in Teacher Preparation.
- We have developed a science/mathematics resource team of 51 elementary teachers. This idea was a direct result of my Academy experiences. As we have worked with this team, we have modeled many of the activities and strategies of the Academy.
- The collaboration with the Eisenhower Consortium @ SERVE assists in securing access to additional resources. Additional agencies are willing to support efforts to improve the Mathematics/Science curriculum.
- Collaboration provided a "support group" if you will. It gave me a level of confidence that I did not previously have; I can truthfully say that this collaboration is a major contributor to the success I have achieved.

The results in Table 7 are further enlightened by the comments recorded from the FY1999-00 interview protocol. A staff developer in North Carolina described the Consortium's collaboration with schools and/or school districts in the following way:

> The Consortium has major connections with various school systems and it has enabled school systems to collaborate and schools systems to collaborate with universities in offering programs in math and science from a central point and even from a regional point and no other organization does that.

In a similar vein, the value of collaboration and networking through the Consortium seemed extremely beneficial to a principal in Lee County, Florida, who has been involved with the Consortium for approximately five years as a board member:

> We would all be out there struggling on our own without some guidance and leadership. The Consortium brings us the leadership and brings us together so that we can have the coordination. We're not all duplicating resources in each of our separate regions, but we're sharing and learning from one another. I learned about math and science approaches and directions they were taking and initiatives, and brought those ideas to my faculty. Through our sharing process and our networking at board meetings, I was able to

learn about resources that were being used in other districts in other states, and then call upon those resources myself.

Another principal from Mississippi offered a similar comment regarding collaboration:

> When we were building our environmental center, they [the Consortium] were able to connect us with people that had expertise in different areas, like environmental concerns and those kinds of things so that we were able to get their assistance in planning and developing and building that center. The environmental education center, which is actually about a $6 million facility that we would not have been able to build without the Consortium's assistance and other partners. ... The Consortium was behind this project and they were helping us to develop it, brought a lot of the other partners in and helped us to acquire the financial means that we needed to build the facility and to carry out the mission that we had started with.

We have responded to clients' requests spontaneously with our limited resources. At times, our short-term consultative services evolved into long-term projects. We have a good example of such services that is summarized by the following comment from a client in Miami-Dade County:

> Three years ago when the TIMSS report came out, our administrators were very much interested in finding out exactly what that TIMSS report was and what kind of implications it would have for our students. We called SERVE and they provided a three-day service training for our administrators that was very helpful. This need was immediate and I am not sure and I don't know who else could promptly meet that need. We have received assistance from SERVE whenever we needed it; our relationship has been on going and I hope it will continue in the future.

The Consortium also helped participants not only become aware of current issues related to mathematics and science education reform for *all* students, but to assist and share this information with other administrators. A Principal from Florida said:

> The collaboration with staff and the collaboration with the board members result in my continuous learning. And when I learn, I then in turn bring back my learning to my district or to my faculty. So the good word spreads.

Speaking on the resources provided by the Consortium, the principal provided further thoughts on the Consortium's impact:

> My belief when I entered the SERVE Board was that I would learn about the most recent research out there that tells us the best ways for teaching science and math and helping children learn at high levels. And that has occurred. I am constantly and continually updating from my collaboration with SERVE on what are the best materials available, what are the best processes for teaching children, and what is the best staff development available.

Addressing Diversity and Equity

In all its endeavors the Consortium has tried to address the issue of equity and diversity to the fullest extent. One of the criteria of our services is to serve the under-served and under-represented population in the southeast. Two representative comments from the 1999-00 Interview Protocol highlight the Consortium's efforts to keep equity at the forefront of its work:

- About 65% of the students are eligible for free or reduced price lunch. The equity issue is a great concern here in my school as well as throughout the district. The professional development on 'Equity' provided by the Consortium helped us to justify and work on this social concern. I think it really helped us to address the issue to promote classroom practices for students to achieve better.
- I think the instructional practices that we use and the things that SERVE advocates are the very things that help the at-risk, underrepresented children and we try to pass along this information to our teachers and make them a little more aware, more sensitive to the children and their needs and show them some instructional strategies that can bring these children in.

Given positive responses from surveys, interviews, and internal evaluations we are confident in concluding that our work is of high quality and utility to clients in the region. Such claims are further highlighted by the summary of our performances in meeting the GPRA indicators during the last three years of the grant.

Meeting Key GPRA Indicators (1998-2000)

Fourteen GPRA indicators came into existence in 1997-98. Since then they have been revised, and as of August 2000, there are 12 (Appendix A). Each Consortium was required to select eight GPRA indicators that were appropriate for its work. Table 9 shows the results of the 8 indicators chosen by the Eisenhower Consortium at SERVE during 1998-00.

Table 9
Performance Indicator Summary for 1998, 1999 and 2000

	Indicator	Standard	Data Source	Results			Standard met
				1998	1999	2000	
1.1	TA* aligned with standards	80% of participants report	Survey	98%	99%	99%***	✓ (98-00)
1.2	TA intensity	60% of activities are 12+ hours	CCDDS	20%	54%	63%	✓ (2000)
1.3	Intensive TA improvements in practice**	80% of participants report	Survey	93%	96%	96%***	✓
1.6	Training of trainers produces training of others	80% of participants report	Survey	78%	80%	80%***	✓ (98-00)
1.7	Intensive TA targeted on at-risk	70% of participants report	CCDDS	88%	96%	96%	✓ (98-00)
1.8	All activities involve collaborators	80% of all activities	CCDDS	90%	96%	92%	✓ (98-00)
1.9	Impact of collaboration as value added	80% of team and network members report	Survey	84%	84%	84%***	✓ (98-00)
2.1	Dissemination of resources	10% annual increase in print	CCDDS	-19% (print)	+08% (print)	+14% (print)	✓ (2000)
		10% annual increase in Web hits	CCDDS	+08% (web)	+54% (web)	+50% (web)	✓ (99-00)

* TA includes technical assistance and training.
** Indicator refers only to intensive subset of activities (1.2), but results here are for all customized activities.
*** 1999 survey results

Table 9 provides evidence that by the year 2000 the Consortium was able to meet and exceed all eight indicators. Due to the absence of survey data from 2000 (survey was replaced with interview protocol), results from 1999 survey are repeated for performance indicators 1.1, 1.3, 1.6, and 1.9 respectively. Four other indicators (1.2, 1.7, 1.8, and 2.1) are summarized from the CCDDS. Each Performance Indicator is depicted below, along with the benchmark for

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desired performance and the pertinent results derived from the CCDDS and Participant Surveys 1998 and 1999.

- **1.1** – At least 80% of participants in consortia technical assistance activities (including training) will report that the content is explicitly aligned with National or State content and performance standards. **Result:** Met the standard in 1998 and 1999 (2000).
- **1.2** – At least 60% of consortia technical assistance (includes training) will be 12 hours or more in duration. **Result:** An improvement trend is observed here; met the standard from 20% in 1998 to 63% in 2000.
- **1.3** – At last 80% of the teachers, administrators, and providers of professional development who participate in the Consortia's continuing technical assistance will report improvement in their practice. **Result:** Met the standard in 1998 and 1999 (2000).
- **1.6** – At least 80% of participants in Consortia training of trainers activities will go on to provide professional development or technical assistance based on the technical assistance they received from the Consortia. **Result:** Met the standard in 1999 (2000).
- **1.7** – At least 70% of the district and school staff who participate in the Consortia's continuing technical assistance will work in districts or schools with a majority of students who are Title I eligible. **Result:** Met the standard in 1998,1999, and 2000.
- **1.8** – At least 80% of Consortia activities will include collaborators from one or more stakeholder groups in planning, product development, and/or service delivery. **Result:** Met the standard in 1998,1999, and 2000.

- **1.9** – At least 80% of members of Consortia teams and networks will report that value was added in one or more of the following ways: strengthening relationships – increasing service coordination; increasing access to resources; or leveraging resources. **Result:** Met the standard in 1999 (2000).
- **2.3** – The total number of Consortia contacts with customers by print and/or "hits" on electronic sites will increase by 10% annually. **Result:** Met the standard in 2000. It is interesting to note that annual increment in web hits was robust in 1999 and 2000 as compared to the increment of print dissemination.

The above results further show that the Consortium has aptly managed its activities and attained its objectives. Undoubtedly, the experience gained through this period has a bearing on our work for the future. We have learned a good deal from our work, which will be highlighted in the next section.

Section IV: Conclusions and Lessons-Learned

This section presents conclusions and lessons-learned from the Consortium's activities for the second grant period 1995-2000. Three questions are the organizers for this section of the report. Two basic questions address the Consortium's work and the impact:

- To what extent were project activities implemented?
- To what extent did the participants benefit from the project's products and/or services?

A third question is added to address the lessons-learned from our work:

- What lessons were learned from the Consortium's work?

To What Extent Were Project Activities Implemented?

The Consortium implemented its program in an effective and efficient manner. Throughout the grant period, high quality, intensive and long-term professional development was provided to a significant number of educators. Other services included the facilitation of significant networks, the establishment of key partnerships, and the dissemination of resources from across the region and the nation. Many of these services touched a number of user groups from schools, state education agencies, higher education, mathematics and science professional organizations, and businesses. As the program was being implemented, the Consortium continually assessed needs, established priorities, and identified strategies to meet emerging needs. The release of the TIMSS results was just one example of an emerging need that the Consortium met through establishing strategic partnerships with districts who had a real desire to use TIMSS results as a beginning for reform in mathematics and science. By providing high quality conferences and customized planning, the Consortium provided "just in time" service to meet regional needs. In many ways, the networking has been very powerful and many of our clients cite it as one of the unique benefits of working with the Consortium. The following comments from clients offer some persuasive evidence to support our claim for successful implementation of the Consortium's program:

> ...I have plenty of positive things to say about the Consortium and its products, its personnel—staff, etc. I have been places that I would have never gone to had it not been for the Consortium. I've interacted with people with whom I would not have interacted with had it not been for the Consortium. I've expanded my growth and my development and that is a direct link to the Consortium. And with my experience and growth and development, I have taken that same growth and development and transported it to districts across the region, across the states. I can't sing its praises loudly enough. It's really been great to be affiliated with such an organization,

such a great group of people to provide services and invite participation to improve mathematics and science instruction across six states. It's powerful!

Higher education partner, North Carolina

I think that the quality of services provided is just outstanding. And everything that I see that they do is well organized and very professionally done. One of the things that I like a lot about the Consortium and my work with them is that they always treat teachers and administrators as true professionals and they look at everyone as if they have something to share and that we can all grow by working together. And I think that's a good message to send.

Principal, Mississippi

To What Extent Did The Participants Benefit From The Project's Products?

Participants at all levels of services and from a variety of user groups greatly benefited from Consortium services and products. The long-term, intensive professional development resulted in changed practices for more than fifty professional developers who went on to provide services to more than 49,000 teachers across the region. Within the region, the Consortium has created successful networks to address standards-based reform. Regional conferences and forums provided rich contexts for participants to discuss the development of standards, policy alignment and accountability. Through these kinds of activities, the Consortium has created mechanisms for regional players to learn from each other. Concomitantly, the Consortium has learned from these networks and has found unique ways to build on our learning experiences. We learned very early the value of teaming-up with key groups to advance agendas beneficial to all groups. Successful partnerships resulted from our understanding of key features of working with others: trust and respect, conceptualization of goals, and innovative ideas. The clients here in the southeast rely on the Consortium for high quality services and materials, a self-imposed, Consortium standard. Over five years, the Consortium disseminated large numbers of print and web-based products. These products often served as catalysts for change or they sparked interest in

securing support for change. When our clients were asked on the 1999-00 Interview Protocol about the unique niche that the Consortium fills in the region, they replied as follows:

> I know the dissemination of information role is a key piece. Whenever I have needed information locally or at the state level or regionally, the Consortium has been my first and best source of information. I think that role is probably more pervasive than the other roles....That is a niche that only the Consortium can fill because they have the consultants; they also have the experience to provide the assistance.
>
> Teacher, Alabama

> I think the greatest niche that the Consortium fills is that of coordination of resources. We would all be out there struggling on our own without some guidance and leadership. So the Consortium brings us the leadership and brings us together so that we can have the coordination. They furnish leadership and they bring us the coordination so that we're not all duplicating resources in each of our separate regions. We are sharing and learning from each other.
>
> Hub Director, SC, State Systemic Initiative

> Professional development without a doubt. Now that covers a wide gamut—that's instructional materials, that's teaching strategies, that's information dissemination. But to me that's it. That's...when I think of SERVE or hear the acronym SERVE, I just think of professional development.
>
> State of Florida Science Supervisor

What Lessons Were Learned from the Consortium's Work?

The Consortium's evaluation and program staff have consistently documented the progress of implementing the planned program for the Consortium. The goal of the evaluation was to determine the effectiveness of the program on clients. The Consortium sought to determine the impact of the program on clients' attitudes, knowledge, and skills to improve mathematics and science education. In addition to clients, the staff members have reflected on their work and offer some valuable lessons that continue to enhance program effectiveness and

efficiency. In this section, lessons-learned are described with particular attention to the major two objectives for the Consortium program, technical assistance and dissemination.

Lesson 1: Building a learning community begins at home.

When the Consortium team was assembled to do its work, each member brought an array of knowledge, skills, competencies, and perspectives about working in mathematics and science. With so much territory to cover in the southeast, they thought long and hard about the best ways to deliver services and products to six states. Finding a way to share knowledge with each other became paramount and so mechanisms were built to share thoughts. This sharing did not always come in the form of formal conversations; ideas were also developed through reading seminal documents and research articles. In addition, there were targeted professional development opportunities that enhanced their skills and knowledge about cutting-edge issues in mathematics and science. The Consortium recognized that forming a community of learning was a way of working together for the purpose of continuous improvement which enabled them to build and extend effectiveness through acting upon newly acquired learning (Hord, 1997). As a service provider, this was critical to developing quality professional development. The challenge was to envision "what could be" by constantly challenging the clients and ourselves to high standards of learning and performing. The Consortium staff became vigilant about finding cutting-edge knowledge and tools for the curriculum; building support for learning; and continuously rewarding individual and collective efforts focused on continuous improvement. The goal was to model high standards of continuous learning through "walking the talk."

Lesson 2: Building capacity for leadership in mathematics and science is essential.

The content focus for building leadership in mathematics includes new and different perspectives for thinking about mathematics and science teaching, mathematics and science content, managing change, collaboration, etc.; therefore, working with one or two teachers from a school and or district is not enough. There must be a targeted effort to impact a critical mass of key individuals who can work together to design and implement whole-school change. To that end, the Consortium often invited school and/or district teams to many of their intensive professional development activities. The challenge became designing agendas to address what the participants need to know (content knowledge and skills as well as knowledge related to implementing change), quality resources, and issues related to the collaboration and collegiality within the school community. While this is often a daunting task, it has been very effective for the Consortium's work. Schools and districts have benefited from these efforts to support them in clarifying their visions and assisting them with aligning their improvement efforts for mathematics and science reform.

Lesson 3: Long-term focused technical assistance provides opportunities to build capacity to support systemic reform in mathematics and science reform.

When the Consortium proposed the Technical Assistance Academy for Mathematics and Science Services (the Academy), they did not know the extent to which this initiative would meet unique needs of their clients. While staff recognized the need to work intensively over time with the participants, they did not understand the extent to which local districts, states, and specialized projects needed support to think about their work in deeper and broader ways. The knowledge and skills of teachers, staff developers and educators with similar roles, varied

broadly regarding the "big picture" of reform. Working intensely with staff developers, schools and/or districts provided an opportunity to give on-going support to educators as they implement standards-based practices. The Consortium learned that having more professional development is not enough to lead to changes in classroom practices. There must be a concerted effort to design high quality technical assistance and training that are provided over a sustained period of time.

Lesson 4: Relationships matter.

Through active partnerships with a variety of players, the Consortium has successfully leveraged resources and increased the potential for scaling-up its products and services. While some partners have limited time and resources, the Consortium has learned how to be strategic in the selection and participation in partnerships. The partnerships must be purposeful and clearly related to mutual goals and missions. Over the years, staff has learned that establishing networks that were not closely connected to critical state and regional initiatives/entities did not add value to statewide initiatives. To some extent, newly created networks or state teams were isolated activities that did not facilitate the coordination of resources.

Lesson 5: Being responsive to the region means being flexible.

When the Consortium created its plan of operation, there was recognition that having a set number of intensive projects would be important. Equally important, however, was the need to be responsive to the region. The Regional Coordinating Board assisted in setting up guidelines that would help evaluate requests from the field. These guidelines enabled staff to respond in a manner that would add value to the Consortium's portfolio of services.

Lesson 6: Dissemination is often a key strategy in technical assistance.

As the Consortium staff gained more knowledge about their work, they were able to be more strategic about planning technical assistance for their clients. Ideas from the *User Friendly Guide to Dissemination* (Ely & Huberman, 1993) guided the laying of the foundation for a considerable amount of their work, especially the Academy. In this document, the authors discussed the contexts for the different dissemination strategies – spread, choice, exchange, and implementation. Since the Consortium was building the Academy curriculum around *Facilitating Systemic Change in Mathematics and Science Education: A Toolkit for Professional Developers* (REL, 1993), staff realized that their goals were at the exchange and implementation levels. This meant that Toolkits would not be mailed to professional developers across the southeast and the work considered done. At the higher levels of dissemination, the Consortium committed to long-term, on-going support to those interested in the services that the Academy would offer. They also felt that the authors' strategies applied to what the Academy as a whole represented – knowledge dissemination. To the Consortium's way of thinking, teaching and learning are about knowledge dissemination, and the role of the disseminator is crucial to supporting the growth and development of new skills. Further, *The Toolkit* supports standards-based learning with a focus on equity, a message they intended to deliver implicitly and explicitly throughout the Academy.

In a similar vein, the Consortium used the same thinking in designing a dissemination plan for all of their key products and services. Clearly believing that dissemination is not distribution, the Consortium reduced general "Frisbee-like" dissemination. Staff tried to connect dissemination to key user groups and the dissemination plan became more customized. While there is a general dissemination for awareness to some clients, the primary goal is to get key

resources to key clients who have immediate and long-term needs related to the products and/or services.

Lesson 7: Evaluate! Evaluate! But follow the indicators!

Evaluation is a key component of the Consortium. The primary goal has always been to determine the impacts and effectiveness of a program designed to enhance skills and knowledge of educators engaged in mathematics and science reform. When the GPRA indicators were established in 1998-1999, they became standards that brought further focus to the Consortium's work. While internal evaluation of some activities was quite extensive, there were no imposed standards to answer to. With the indicators as a guide, the evaluation design was enhanced through the use of multiple strategies that provided multiple sources of data for the assessment of utility and quality. Also, the evaluation process became a valuable part of the decision-making process in that the Consortium concentrated on activities that would assist them in meeting the indicators.

Lesson 8: "Less is more" when the Consortium's program design becomes focused.

Finding a unique niche for their work was not very apparent when the Consortium was funded in 1993. As a new entity in the southeast, it was crucial to find out what the needs were and how the Consortium might craft a unique niche to help advance the mathematics and science agenda. Staff found that disseminating quality print and web-based resources could make their clients aware of the key issues in mathematics and science reform; however, if they wanted to build capacity for states in the region, there was a need to concentrate on projects that promoted high quality, standards-based education for all students. Less became more when the

Consortium could collaborate with key projects that had needs related to building teacher knowledge, improving curriculum and instruction, and providing school-based support through teacher/local leadership for mathematics and science. Less became more when the Consortium learned how to target schools that had a need and willingness to improve. Working through long-term efforts like the Academy and Intensive Sites provided a means to work more intensively with clients. While the Consortium now touches fewer clients with the Intensive Sites, procedural knowledge is acquired that may help to scale up the dissemination of tools, processes, and products to a larger number of clients.

In conclusion, the Southeast Eisenhower Consortium at SERVE has clearly demonstrated its ability to engage in activities that go beyond those that states routinely do to support reform in mathematics and science education. By demonstrating its ability to convene major stakeholders in meaningful kinds of regional and state activities, the Consortium plays a valuable role in facilitating mathematics and science reform. Making a difference in the lives of young people is the ultimate goal, though students are not the direct recipients of our work. With this in mind, there is always the need to get better at how we work, and with whom we work, so as to reach a significant number of educators who can impact the lives of students.

Michael Fullan offers much to ponder as we continue to work toward reform in mathematics and science.

> The more we work with wider and wider environments, the more likely we are to discover the profound spiritual meaning of what Senge (1990) called the 'indivisible whole': 'All boundaries, national boundaries included, are fundamentally arbitrary. We invent them and then, ironically, we find ourselves trapped within them' (Senge, 1990, p. 98). Not getting trapped in our own self-sealing world is the fifth deep meaning of

external collaboration. By extending purposeful alliances to diverse outside partners we gain moral meaning in educational reform and contribute to its spread.

Fullan, 1999, p. 60

As the Consortium's mission is advanced, the intent is to expand the boundaries of the southeastern states and the region to spread practices that improve the opportunities for students to engage in meaningful mathematics and science learning.

References

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APPENDICES

Appendix A:
GPRA Indicators (Revised 2000)

OERI Indicators for E=MSC^2 (with changes recommended by the Evaluation Committee, 8/00)

Technical Assistance	
Objective	**Indicator**
1. Provide high-quality technical assistance in mathematics and science education (includes training and professional development, planning assistance, facilitation of collaboration and networking, and other technical assistance.	***1.1: Alignment with standards.*** At least 80% of participants in Consortia technical assistance activities will report that the content of Consortia technical assistance is explicitly aligned with National or State content and performance standards and/or is focused on assisting in the implementation of National or State standards and practices related to their attainment.
	1.2: Intensity of technical assistance. At least 60% of Consortia technical assistance activities will be 12 hours or more.
	1.3: Improvements in participants' practice.* **At least 80% of the teachers, administrators, and providers of professional development who participate in the Consortia's continuing technical assistance will report improvement in their practice.**
	1.4: Improved student performance. At least 80% of teachers who participate in the Consortia's continuing technical assistance will report improvements in student engagement and/or student performance.
	1.5: Improved student performance in sites that receive intensive assistance from Consortia. Assessment scores (e.g., on classroom assessments, on state and local assessments) of a majority of students who have been enrolled for at least one year in a mathematics and/or science program will show improvement.
	1.6: Participation by individuals who will assist or train others. At least 80% of participants in Consortia trainer of trainer activities will go on to provide professional development or technical assistance based on the technical assistance they received from the Consortia.
	1.7: Targeted services. At least 70% of the district and school staff who participate in the Consortia's continuing technical assistance will work in districts, schools, and/or classrooms with a majority of students who are eligible for free or reduced lunch.
	1.8: Volume of collaboration. At least 80% of Consortia activities will include collaborators from one or more stakeholder groups in planning, product development, and/or service delivery.
	1.9: Impact on collaboration and networking.* **At least 80% of participants in Consortia partnerships, collaborations, teams, and networks will report that value was added by addressing significant concerns; influencing policy and practice; providing coherence to reform efforts; helping to sustain reform efforts; strengthening relationships; increasing service coordination; increasing access to resources; or leveraging resources.**
Dissemination	
Objective	**Indicator**
2. Disseminate information about exemplary and promising practices in mathematics and science education.	***2.1: Volume of dissemination.**** **The total number of Consortia contacts with clients by print and/or "hits" on electronic sites will increase by 10% annually.**
	2.2: Quality. A majority of the recipients of information and materials disseminated by the Consortia will report that they are of high quality and reflect exemplary or promising practices.
	2.3: Utility. A majority of the recipients of information and materials disseminated by the Consortia will report that they have contributed to improving their work.

* These indicators (1.3, 1.9, 2.1) were included in the Eisenhower Consortium RFP last spring, and thus should be considered "key" indicators.

Appendix B:
Interview Protocol, 2000

EISNHOWER CONSORTIUM @ SERVE
1203 GOVERNOR'S SQUARE BLVD., SUITE 400
TALLAHASSEE, FL 32301
[Phone: 800/ 854-0476 / Fax: 850/ 671-6010]

E=MSC^2 Client Interview Protocol

Date: _____ ID Region/Interview #: ___ ___ / ___ ___

Consortium: _____SERVE_____ Interviewer: _____

Interviewee Name: _____

Title: _____

Organization: _____ State Abbv: ___ ___ (location of client's school district or organization)

A. Hello, this is _____. I'm with the Eisenhower Consortium @ SERVE. Thank you for taking the time to talk with me today.

B. As you know, this interview will help the Consortium (SERVE) to measure the impact of our two main types of activities: technical assistance (including professional development and training) and networking and collaboration. Your responses will be used to help the consortium plan future high-quality activities that are relevant to the local, state, and regional needs of its clients.

C. Your responses will be kept confidential and anonymous, and they will be summarized with the responses from other clients and analyzed in a report to the U.S. Department of Education and Congress.

D. With your permission, I would like to tape record this interview as a backup to my notes. Would that be all right?

Yes.....1
No.....2

E. Okay, let's begin.

Interview start time: _____

A. BACKGROUND INFO

(FOR ALL RESPONDENTS **)**

In this first set of questions, I'd like to confirm your affiliation, as well as the nature of your involvement in consortium activities.

QA1. My first question is, do you consider your work to be related to science education, math education, or both?

Math 1
Science 2
Both 3
NS/DK 9
RA 7

QA2. I understand that your primary employer or affiliation is _____. Is that correct?

(NOTE: Confirm the client's role, as you know it, using the survey options as follows. If your records are incorrect, identify the correct role by reading the list of affiliations.)

School district/building: Public 01
School district/building: Private 02
(IF ANY OF THE BELOW, GO TO QA2a)
Institution of Higher Education 03
Professional Association 04
Business/Industry 05
Informal Science 06
Community member or parent 07
Federal Agency/Level 08
State Agency/Level 09
Intermediate/County Education Agency/Level 10
ENC 11
National Science Foundation (SSI/USI/RSI/LSC) 12
Regional Service Provider (RTEC/Lab/etc) 13
Other (SPECIFY) 14
_____
RA 77

QA2a. *(IF NOT WITH A SCHOOL DISTRICT AND NOT A PARENT, COMPLETE THE FOLLOWING QUESTIONS THEN SKIP TO QA5)*

In what state or state(s) do you work?

In a sentence or two, can you tell me briefly about your organization and what you do?

QA3a. *(IF SCHOOL DISTRICT AFFILIATION)*

I also understand that your primary role is that of a _____. Is that correct?

Teacher: Elementary 11
Teacher: Middle/Jr. High 12
Teacher: High School 13
Teacher: Other (e.g., K-12) 14
Curriculum/Content Specialist (e.g., math supervisor, science resource tchr) 21
Administrator (e.g., principal, vice principal, superintendent) 31
Other (SPECIFY) 41
_____
NA 88
RA 77

QA4a-1. Approximately how many students are enrolled in your school?

(DO NOT READ LIST)

500 or less 1
501-1000 2
1001-1500 3
1501-2000 4
2001 or more 5
NS/DK 9
NA 8
RA 7

QA4a-2. Approximately how many students are enrolled in your district?

(DO NOT READ LIST)

2000 or less 1
2001-4000 2
4001-6000 3
6001-8000 4
8001-10,000 5
10,001 or more 6
NS/DK 9
NA 8
RA 7

QA4b-1. What percentage of students in your school are eligible for free or reduced-price lunch?

(DO NOT READ LIST)

Less than 35% 1
35-49% 2
50-74% 3
75% or more 4
NS/DK 9
NA 8
RA 7

QA4b-2. What percentage of students in your district are eligible for free or reduced-price lunch?

(DO NOT READ LIST)

Less than 35% 1
35-49% 2
50-74% 3
75% or more 4
NS/DK 9
NA 8
RA 7

QA4c-1. Which of the following categories describe the majority of students in your school? *(READ LIST)*

	Yes	No	NS/DK	NA	RA
QA4c-1a. Title I	1	2	9	8	7
QA4c-1b. Native American	1	2	9	8	7
QA4c-1c. Pacific Islander/Native Hawaiian	1	2	9	8	7
QA4c-1d. Limited English Proficiency	1	2	9	8	7
QA4c-1e. Other special populations (SPECIFY):	1	2	9	8	7
_____	1	2	9	8	7
_____	1	2	9	8	7

QA4c-2. Which of the following categories describe the majority of students in your district? *(READ LIST)*

	Yes	No	NS/DK	NA	RA
QA4c-2a. Title I	1	2	9	8	7
QA4c-2b. Native American	1	2	9	8	7
QA4c-2c. Pacific Islander/Native Hawaiian	1	2	9	8	7
QA4c-2d. Limited English Proficiency	1	2	9	8	7
QA4c-2e. Other special populations (SPECIFY):	1	2	9	8	7
_____	1	2	9	8	7
_____	1	2	9	8	7

QA5. In approximately what year did you first become involved in a consortium-supported activity?

Year ___ ___ ___ ___

NS/DK 9999
RA 7777

QA6a. As you know, the Consortium (SERVE) provides professional development, technical assistance, and resources to promote systemic improvements in math and science education.

The Consortium also promotes networking and collaboration among local, state, and regional organizations. By *regional*, we mean within the multi-state region that the Consortium serves.

I understand that you have been involved in *(READ LIST of **key consortium activities** and/or projects that the client was involved in over the past 5 years)*, which have been supported, in part, by SERVE. Is this correct?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

Q6a-1. *(IF NO)* What corrections need to be made?

(UPDATE YOUR CONSORTIUM'S RECORDS AS APPROPRIATE)

[The Academy 1
Intensive Sites 2
Consultative Services 3
State Board 4
Collaborator, Networks, or Teams 5
TIMSS 6
Others: (specify) ..... 7]

QA6b. Were you involved in any other key consortium activities in the past 5 years?

(IF YES) Please list those activities for me.

[Possible Programs: *SECME, ESEP, Algebra for All,* <u>Exploratorium, TIMSS-R, Miami Museum of Science, etc.</u>]

(UPDATE YOUR CONSORTIUM'S RECORDS AS APPROPRIATE)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QA6c. *INTERVIEWER: Based on your records and on the client's response to QA6a and b, confirm which sampling criteria the client satisfies. If you are unsure of the client's status, confirm the categories with the client.*

CRITERION 1: Teacher, administrator, and/or provider of professional development who participated in the Consortia's continuing technical assistance.

CRITERION 2: Participant in one of more Consortia partnerships, collaborations, teams, and/or networks.

Criterion 1 1
(GO TO PART B, PG 6)
Criterion 2 2
(GO TO PART C, PG 10)
Both 3
(GO TO PART B, PG 6)

B. TRAINING AND TECHNICAL ASSISTANCE

(FOR RESPONDENTS SATISFYING SAMPLING CRITERION #1**)**

My next few questions relate to your experiences with the professional development and/or technical assistance activities sponsored by the Consortium @ SERVE. I'd like to ask you several questions about the benefits and other outcomes related to your participation in these activities.

Earlier you stated that you had been involved with the Consortium (SERVE) since 19____. When answering these questions, please reflect back over the years that you have been involved with the consortium's professional development and/or technical assistance activities.

I'm going to read a list of possible outcomes related to your involvement in professional development and/or technical assistance activities sponsored by the Consortium. After I read <u>each statement</u>, I'd like you to tell me whether or not it is true for you. After we've gone through the list of outcomes, I will go back and ask you to give me one example of each outcome you mentioned. Let's begin.

QB7a. Did the professional development and/or technical assistance you received.....

....assist you in implementing or helping others to implement <u>curriculum</u> aligned with National or State standards?

QB7a-e. (EXAMPLE/CLARIFICATION --see QB13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

<u>[Can you elaborate on an example]</u>

QB7b. Did it assist you in implementing or helping others to implement <u>instructional practices</u> to attain National and/or State standards?

QB7b-e. (EXAMPLE/CLARIFICATION –see QB13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB7c. Did it assist you in implementing or helping others to implement assessment aligned with National and/or State standards?

QB7c-e. (EXAMPLE/CLARIFICATION –see QB 13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB8. Did the professional development and/or technical assistance enable you to improve instructional practices or help others improve their instructional practices in math and/or science?

QB8-e. (EXAMPLE/CLARIFICATION –see QB13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB9. Did it help to meet the needs of at-risk, under-represented, and/or underserved students in math and/or science?

QB9-e. (EXAMPLE/CLARIFICATION –see QB13)
[If NOT, why?]
[If YES, tell me an example of how our work assisted you in this regard.]

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB10. Did it enable you to improve student engagement in math and/or science?

(NA, IF CLIENT IS NOT A TEACHER; REFER TO QA2)

QB10-e. (EXAMPLE/CLARIFICATION –see QB13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB11. Did it enable <u>you</u> to enhance student performance in math and/or science?

(NA, IF CLIENT IS NOT A TEACHER; REFER TO QA2)

QB11-e. (EXAMPLE/CLARIFICATION –see QB13)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB12. Can you think of any other important outcomes resulting from your involvement in this professional development and/or technical assistance, whether they are positive or negative?

QB12-a. *(IF YES)* Please describe.

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QB13. You've said that your participation in this professional development and/or technical assistance has led to a variety of outcomes. Now, **for <u>each outcome</u>** you noted, I'd like to go back and ask you to **give me <u>one</u> example that illustrates that outcome**. In each example you provide, please be specific in describing the way in which the outcome affected you, students, and/or others. I will also ask you to clarify any outcomes that you were unsure about.

<u>(INTERVIEWER: GO BACK TO ITEMS #7-11</u>, and for each outcome that the respondent experienced or was unsure about, ASK FOR EXAMPLES OR CLARIFICATION. Also be sure to probe for the level of impact, such as whether it impacted teachers, students, the organization, etc.)

<u>(SAMPLE PROBE FOR "YES" RESPONSES:</u> "You stated that your involvement in the Consortium's professional development and/or technical assistance activities helped to improve instructional practices. Can you tell me **<u>whose</u> instructional practices were improved? In what ways have instructional practices changed as a result? How have these changes benefited you, students, or others?** Please give specific examples.")

<u>(SAMPLE PROBE FOR "NOT SURE" RESPONSES:</u> "You stated that you were unsure whether your involvement in the Consortium's professional development and/or technical assistance activities helped you to improve instructional practices. **Can you please explain why you were unsure?**")

QB14. Of all the outcomes you described as a result of your involvement in this professional development and/or technical assistance, which *one* outcome was the most significant, in your opinion?

QB14a. Why was it the most significant?

Curriculum alignment 01
Instructional alignment 02
Assessment alignment 03
Improve instruction 04
Meet needs of at-risk, etc. 05
Improve student engagement 06
Enhance student performance 07
Other (SPECIFY) 08

NS/DK 99
NA 88
RA 77

QB15. Did this professional development and/or technical assistance meet your expectations?

QB15a. In what ways [DID IT]/[DID IT NOT] meet your expectations?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

If client also satisfies Criterion 2 (i.e., participates in one or more Consortium partnerships, collaborations, teams and/or networks): .....*GO TO PART C, PG 10*

If not: .....*GO TO PART D, PG 14*

C. COLLABORATION AND NETWORKING

(FOR RESPONDENTS SATISFYING SAMPLING CRITERION #2**)**

This set of questions relates to the nature of and outcomes related to your collaboration and networking with the consortium. First, I'd like to ask you about the nature of your collaboration with the Consortium @ SERVE.

Earlier you stated that you had been involved with the consortium since 19___. When answering the following questions, please reflect back over the years that you or your organization has collaborated with the consortium.

QC16a. Can you briefly describe the nature of this collaboration? For example, please describe whether this collaboration involved planning, product development, provision of space or staff time, or other things.

(DESCRIBE BELOW)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC16b. Did different organizations contribute different things?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC16b-e. Can you give me an example?

Now, I'm going to read a list of possible outcomes related to your collaboration with the Consortium (SERVE). After I read each statement, I'd like you to tell me whether or not it is true for you. After we've gone through the list of outcomes, I will go back and ask you to give me one example of each outcome you mentioned. Let's begin.

QC17a. Did your collaboration with the Consortium (SERVE) strengthen relationships?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17a-e. (EXAMPLE/CLARIFICATION –see QC18)

QC17b. Did your collaboration with the Consortium (SERVE) increase coordination in providing services?

QC17b-e. (EXAMPLE/CLARIFICATION –see QC18)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17c. Did it increase access to resources?

QC17c-e. (EXAMPLE/CLARIFICATION –see QC18)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17d. Did it leverage resources and efforts for greater impact?

QC17d-e. (EXAMPLE/CLARIFICATION –see QC18)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17e. Did your collaboration with the Consortium (SERVE) inform policy decisions at any level?

QC17e-e. (EXAMPLE/CLARIFICATION –see QC18)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17f. Did it assist you in carrying out your work more effectively?

QC17f-e. (EXAMPLE/CLARIFICATION –see QC18)

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC17g. Can you think of any other outcomes resulting from your collaboration with the Consortium (SERVE), whether they are positive or negative?

QC17-g. *(IF YES)* Please describe.

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC18. You've said that your collaboration with the Consortium @ SERVE has led to a variety of outcomes. Now, for <u>each outcome</u> you noted, I'd like to go back and ask you to give me <u>one</u> example that illustrates that outcome. In the examples you provide, please be specific in describing the way in which each of these outcomes affected you, your organization, or the schools you work with. I will also ask you to clarify any outcomes that you were unsure about.

(INTERVIEWER: GO BACK TO ITEMS #17a-f, and for each outcome that the respondent experienced or was unsure about, ASK FOR EXAMPLES OR CLARIFICATION. Also be sure to probe for the level of impact, such as whether it impacted the respondent, his/her organization, the schools with which the respondent works, etc.)

(SAMPLE PROBE FOR "YES" RESPONSES: "You stated that your collaboration with the the Consortium (SERVE) strengthened relationships. Between **what people, groups, or organizations were relationships strengthened? In what ways? How did this benefit you, your organization, or others with whom you work?** Please give specific examples.")

(SAMPLE PROBE FOR "NOT SURE" RESPONSES: "You stated that you were unsure whether your collaboration with the Consortium (SERVE) helped to strengthen relationships. **Can you please explain why you were unsure?")**

QC19. Of all the outcomes you described as a result of your collaboration with the Consortium, which *one* outcome was the most significant, in your opinion?

QC19a. Why was it the most significant?

Strengthen relationships 01
Increase service coordination 02
Increase access to resources 03
Leverage resources/efforts 04
Inform policy decisions 05
Help you work more effectively 06
Other (SPECIFY) 07

_____

NS/DK 99
NA 88
RA 77

QC20. Did your collaboration with the Consortium meet your expectations?

QC20a. In what ways [DID IT]/[DID IT NOT] meet your expectations?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QC21. Has your collaboration with the Consortium provided you, your organization, your state, and/or teachers or students with benefits that would not have been afforded them otherwise?

QC21a. Please explain.

Yes 1
No 2
NS/DK 9
NA 8
RA 7

GO TO PART D, PG 14

D. OVERALL RATING OF THE CONSORTIUM

(FOR ALL RESPONDENTS**)**

The next few questions focus on what you perceive to be the consortium's role and the quality and impact of its work overall.

QD22. In general, what niche do you feel the consortium fills in your region, if any?

QD23. Would you say that the consortium addressed any needs that would have been difficult or impossible for another organization to address?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QD23a. Please explain.

QD24. Overall, when you reflect on the Consortium's role, what other impact or impacts, if any, did its work have on mathematics and/or science education?

QD24a. *(IF ADDITIONAL IMPACT IS MENTIONED BY CLIENT)* In what ways do you feel the Consortium's work contributed to this impact?

QD25. Is there any way in which the services and/or products of the Consortium have <u>not</u> met your expectations?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

(IF YES) In what ways did they not meet your expectations?

(IF NOT SURE) Please explain.

QD26. How can the Consortium improve its services and/or products in the future, to better meet either your own professional needs, or the needs of your organization, school, district, state or region?

(PROBE to determine at what level this need exists—professional, organizational, school, district, state, or regional level)

QD27. Would you like to share any additional comments, either positive or negative, about the Eisenhower Consortium @ SERVE, its services, and/or products?

Yes 1
No 2
NS/DK 9
NA 8
RA 7

QD27a. **(IF YES or NOT SURE)** What additional comments do you have?

THESE ARE ALL THE QUESTIONS I HAVE FOR YOU. THANK YOU FOR YOUR TIME.

Interview ending time: _____

Appendix C:
Levels of Services and Phased Impact Model

Plan for Levels of Service

The SERVE Consortium encourages and supports state and local efforts to develop and implement plans for improving mathematics and science, with technical assistance and training on topics such as standards, curriculum frameworks, alternative assessment, instructional strategies and contextual conditions for implementing reform. Because clients/partners are at different developmental stages, and because our resources are limited, we offer four levels of service that differ in intensity and in anticipated impact. These levels are:

- **Level I Service**--Providing information services that may be used to address a specific issue. The anticipated impact is broad (that is, we can reach many people with this strategy), but shallow (Awareness of information about the issue will be raised, but participants may or may not be moved to take action.).
- **Level II Service**--Convening participants to provide information, to facilitate dialogue and to provide strategies aimed at a specific target. For example, a district or a group may convene around developing plans for using state frameworks to develop local curricula in mathematics and science. At this level, we anticipate an increased knowledge and sense of mutual support on the part of participants. People brought together at this level of service may initiate their own networks.
- **Level III**--Providing sustained support over a period of time through a variety of client-centered services. For example, a district may have implemented a hands on science program with a summer institute. Follow-up support might be provided during the school year. Anticipated impacts for this level of service include changes in participant behavior.
- **Level IV**--Providing support for reform efforts that deepen client relationships and build capacity in the region through intensive training, technical assistance and support for the cadre of newly developed trainers. This level of service is exemplified in the Technical Assistance Academy for Mathematics and Science Services (TAAMSS). Impact anticipated includes a change in teacher and student behavior in affected districts.

A large number of clients will receive services at Levels I and II during the grant. As the grant proceeds, the cadre trained in Level IV will provide Level III services, increasing the outreach of the SERVE Consortium.

The Phased Impact Model

The Consortium used *the Phased Impact Model* as a framework for the evaluation of its activities. This model is a specialized approach to studying program outcomes. The Phased Impact Model attempts to determine the most appropriate techniques and types of data required to "tell the story" of a program. The model assumes that most programs will have a range of outcomes and not all of these outcomes will be evident immediately. This model uses the concept of "levels of impact" to describe the range of outcomes. Five distinct levels have been identified:

- **Level One/Individual Changes** -- Changes occur in the knowledge, attitudes, and plans for immediate use of services and products. These changes are of the type, which would be detected from post-training evaluation forms or interviews, and in many cases would begin to manifest immediately after an initial contact.
- **Level Two/Short-Term, Informal Change** -- After early exposure to new information and ideas, recipients may begin to tentatively explore them in various ways; they may discuss them with colleagues, teach a class in a new way, and/or explore the area in more depth through reading or professional contacts.
- **Level Three/Intermediate or Formal Organizational Change** -- Once convinced through earlier contacts and exploration that the new ideas merit serious efforts, the organization begins to change. Committees may be formed; policies are revised; professional development is undertaken; or new materials are developed, used, or adopted.
- **Level Four/Sustained Staff/Culture Change** -- The new ideas have been implemented and become part of the organized culture; individual staff members have "bought in" to them and can describe the changes, which have occurred. It is at this level that we can begin to anticipate achievement gains and describe them when appropriate.
- **Level Five/Long-Term Change or Student Impact** -- This level examines the extent to which students and/or their learning environments may have been affected by the Consortium efforts as evidenced by achievement measures, course selection and attitudes toward mathematics and science and measured through pre- and post-testing. These methods are most informative when assessing concentrated work done by the Consortium in targeted schools, school districts and/or populations of students.

The model also entails that these levels are not necessarily sequential. Level one generally occurs prior to level two; however, levels can be skipped or occur out of sequence. When examining program outcomes, it is important to consider the anticipated level of impact. This enables stakeholders to examine program outcomes realistically. Stating the level of impact expected upfront also allows for careful planning of the data collection techniques. The levels of service provided by the Consortium influence these phases of impact.

Appendix D:
Decision Making Rubric

Decision-Making Processes for Coherence

On an annual basis, program priorities are reviewed to assist in refining the Plan of Operation. The RCB assumes a major role in this process, with additional input provided by State Teams (changed to State Connections), selected collaborators, and SERVE Consortium staff.

Action: Our informal process for decision-making was formalized to include the following for selecting/deselecting activities.

1. **Staff knowledgeable about the issues.**
2. **Issues examined with input from variety of mechanisms—people, papers, documents, etc.**
3. **Data from steps 1 and 2 are reviewed with reference to the following rubric:**

    - **Is the requested activity a part of our original scope of work?**
    - **Is the request important for us to do on a national, regional and/or state level?**
    - **Do we have the physical and fiscal resources to do this?**
    - **What are the consequences of not fulfilling the request?**
    - **Would fulfilling the request enhance our capacity to do or improve our work?**
    - **Are there other sources that might be better positioned to meet the request?**
    - **Are the requestors eligible for our services?**
    - **Does it add value to our portfolio of services?**

4. **Decision to select or deselect**

Appendix E:
A Typical Sample of "Features and Activities" of the Academy

A Sampling of Features and Activities from Academy Session

	TAAMSS I	TAAMSS II	TAAMSS III	TAAMSS IV
Recurring Components	Many activities referenced in this table were either modified from or inspired by the resource Facilitating Systemic Change in Science and Mathematics Education: A toolkit for professional developers			
Toolkit Resources for Professional Development	The Change Game Adult Learners Team Building A Model Lesson: Pendulums	Dissemination CBAM: Concern-Based Adoptions Model	A Model Lesson: Soaring with Science	A Model Lesson: Them Bones Team Building Take III Facilitation Skills A Model Kickoff
Math/Science Content Standards	Pendulum I	Son of Pendulum: Focus on Curricular Approaches	Third International Math/Science Study CAAMP: Computer Applications Math Manipulatives Program Science and Assessment.	Problem Solving Hands-On Science Math Quest Forensics

(table continues)

	TAAMSS I	TAAMSS II	TAAMSS III	TAAMSS IV
Adult Learning/ NSDC Standards	There's a Song in My Heart Listening Posts	Action Planning Team Building Take II	Workshop Design	Developing a Professional Portfolio Reflective Teaching Grant Writing Parental Involvement Staff Developers: Designing Our Future
Equity	Family Science Connected Math Project	Considerations for developing a sense of fate control in students	Appreciating Diversity: A gardener's perspective	The Equity Continuum: A call for action
Reflection	True Colors Southern Voices Red-Black Game State Team Meeting	Gregorc Learning Style Delineator State Team Meeting	Hello Gorgeous State Team Meeting State Team Presentation	Stretch for Excellence Presentation Debriefs Graduation Celebration

Appendix F:
Intensive Sites Services

Summary of Intensive Sites Activities
1999

I. INTRODUCTION

In 1996, The Eisenhower Consortium @ SERVE, began to partner with a number of districts throughout the southeast by providing long-term, intensive technical assistance in response to an agreed upon plan. The goals of this service are to broaden impact, accelerate change, and increase the effectiveness of improvements in mathematics and science education through comprehensive systemic reform. Within the SERVE region there are five intensive sites. They are located in the following cities and states: (1) Mobile, Alabama; (2) Miami, Florida; (3) Atlanta, Georgia; (4) Boonesville, Mississippi; and (5) Monck's Corner/Orangeburg, South Carolina.

Partnerships are built on the premise that each partner will learn from each other as strategies to address reform are developed. As site partners, the relationships are intended to be long-term, to be supported by a significant commitment of time and resources by the intensive site partners, and to be capable of producing products that can be disseminated and implemented in other locations.

The plan specifies expectations, services, and responsibilities of the Consortium and the Intensive Site Partner. The Consortium is committed to helping sites build capacity for reform, access the latest research, and network with "experts" of the field. The focus of the strategic plan is the design and implementation of a project with the intended outcome of improving student achievement. For applicants to become an Intensive Site Partner, clients must meet the following criteria:

- Demonstrated interest in mathematics and science reform
- Commitment from all targeted schools to participate
- Full participation of partner in developing the strategic plan
- Support of project at all levels of leadership
- Coordination of district and/or outside agency funds
- Monitoring system designed to systematically evaluate student progress

Thorough examination of local needs and an assessment of the partner's ability to achieve the intended purposes is completed before the details of collaboration are defined. The focus of intensive site work falls into three areas: 1) the appropriate and effective use of technology to support engaged learning; 2) the development of innovative and effective science and mathematics model lessons and rich activities; and 3) the design and development of effective professional development approaches to support reform.

II. PARTNERS

Our Intensive Site partners are:

Hialeah High School Feeder Pattern
Dade County Public Schools
Region 1 Miami, Florida

Since 1996, the Hialeah feeder pattern has received targeted support in assessment, grant-writing, mathematics curriculum alignment, TIMSS and FCAT. The Hialeah feeder pattern includes 1 high school, 2 middle schools and 8 elementary schools. Administrators and teachers of the feeder pattern have attended PPLI's, the EDC Showcase, and Algebra Task Force Meetings. Schools of the Hialeah feeder pattern are involved in Dade County's School-wide Action Research (SAR). This project is designed to help teachers reflect on and improve upon their classroom practice through action research. In response to this project and the Consortium's Meaningful Math Conference, the teachers and administrators of the feeder pattern developed a plan called the Algebra Action Research Project. This project encourages all teachers of mathematics in the feeder pattern to develop and implement a K-12 algebraic curriculum strand.

The Consortium agreed to provide services in five important ways:

1. Provide staff development opportunities to Hialeah feeder pattern mathematics and science teachers and building administrators.
2. Provide staff development opportunities to teachers and administrators involved in the School-wide Action Research project.
3. Contribute to the development of the Algebra Action Research project.
4. Continue technical assistance as needed by individual schools in the feeder pattern.
5. Provide resources and materials to those schools in the feeder pattern

Activities:

• 2/10 - 14	Hilton Head, SC	District personnel and teachers participated in the TAAMMS Reunion as Academy members
• 3/10 - 14	Charlotte, NC	District personnel, administrators and teachers of the Hialeah feeder pattern participated in the Meaningful Math Conference
• 4/24	Miami, FL	Algebra Action Research project planning session. Provided a session on K-12 algebraic thinking, as well as using TIMSS Assessment Test (FCAT)
• 6/21 - 6/23	Miami, FL	Participated in "Data Driven Decision Making" workshop led by Dr. Ruth Johnson (California)
• 8/16 - 17	Miami, FL	Facilitated two-day workshop for Cohort 1 SAR teachers and administrators on Inquiry-based Instruction

Elementary Science Education Partners (ESEP)
Atlanta City Public Schools
Atlanta, Georgia

The consortium entered into a partnership with the Elementary Science Education Partners (ESEP) during the 1996-1997 program year. The Elementary Science Education Partners program was established as a partnership between the Atlanta Public Schools (APS) and a consortium of colleges in the metro-Atlanta area, including Emory University, the Morehouse School of Medicine, Georgia State University, and the Atlanta University campuses of Spelman, Morehouse, Morris Brown colleges, and Atlanta-Clark. The Program serves teachers in Atlanta Metro area elementary schools through a grade-level phase of professional development, science materials and support. The goal of the program is to improve the teaching of science in the APS elementary schools. Faculty and administrators are actively engaged in the design and implementation of this reform to meet this goal. The ESEP project is instrumental in recruiting and training college students as partners for the elementary school teachers to help select and utilize the science kits developed by ESEP. These kits cover the state-mandates and local science curriculum, as well as supplement the textbooks and capture the spirit of the national science standards. The program is successful in recruiting science professionals as school mentors and ensuring that the project is culturally compatible with the needs of the public school system. The project is currently in its last year of operation.

The Consortium agreed to provide services in five areas:

1. Assist in the documentation of teacher change in response to professional development for inquiry-based instruction.
2. Provide supplies and resources to the development of quality professional development opportunities.
3. Contribute to the development of materials and science kits that are used in the program.
4. Continue to support technical assistance needs by including key ESEP personnel, when possible, in Consortium sponsored events.
5. Provide resources to convene focus groups, data collection, and data transcription.

Activities

• 2/99	Atlanta	Planning session for training on the Professional Development and Assessment Toolkits for 2nd grade teachers
• 4/15 - 16	Atlanta	Staff development on the use of the tool kits and identifying the contents and effectively using the science kits developed by ESEP
• 6/22 - 24	Atlanta	Assist with the Science Knowledge Inquiry Leadership Institute
• 7/1	Atlanta	Follow-up with ESEP staff to better involve the Toolkits in their professional development training

Maysville Initiative
Mobile Public Schools
Mobile, Alabama

The Maysville Initiative is a collaborative between the Consortium, Mobile County Public Schools, Mobile A+, the University of South Alabama and the Mobile Area Education Foundation. The Initiative involves 6 schools in the Maysville Feeder Pattern - 1 high school, 1 middle school, and 4 elementary schools. The ongoing objective of this project is to create awareness and clearer understanding of what teaching and learning looks like in a classroom that reflects the standards developed by the National Council of Teachers of Mathematics. With this in mind, the project employs a mathematics resource teacher who assists the teachers with identifying and providing professional development activities, selecting appropriate materials and resources for classroom use, and developing rich activities and lessons. There are various staff development opportunities available to the teachers throughout the school year and the summer.

The Consortium agreed to provide services in six important ways:

1. Provide leadership training to identify teacher leaders.
2. Provide professional development opportunities to math and science teachers from the feeder pattern.
3. Provide administrators with strategies on how to evaluate a teacher who is implementing a standards-based educational program.
4. Recommend consultants that can provide varied long-term training opportunities outside the scope of the Consortium's mission.
5. Broker a networking relationship between HASP and the Maysville feeder pattern.
6. Provide financial support for the Maysville Initiative.

Activities:

• 1/25	Mobile, AL	Presentation (Identifying and Evaluating a Standards-Based Classroom) to Teacher Leaders, Principals, School Administrators District Representatives, etc.: *Mathematics in Maysville in the Millenium*
• 1/25	Mobile, AL	Meeting with Teacher Leadership Teams from participating schools. Assessed project's project; identified strategies that could be used to make the project successful
• 3/12 - 14	Charlotte, NC	Leadership Teams attended Meaningful Math Conference sponsored by the Consortium
• 7/12 - 30	Mobile, AL	Involved in a two-week training as a participant and "trainer" with Dr. Honi Bamberger, from Insight (Maryland), on Teaching Mathematics for Meaning and Mastery

Boonesville Middle School
Boonesville School District
Boonesville, Mississippi

This partnership grew from a long-term relationship that began with identifying two of Boonesville's projects as "Promising Programs," during the early 1990's. Since then, the Consortium has been instrumental in helping the school district secure funds to build an environmental center on the school's campus. The environmental center is a state-of-the-arts building designed with 5 classroom labs. Each lab is complete with computers and is connected to the greenhouse that is a part of the center. Through the center, students are provided an opportunity to conduct experiments addressing environmental issues and to observe the natural habitats of native Mississippi plants. In addition to the Environmental Center, the Consortium provided funds for the building of a butterfly garden and a Gazebo. Boonesville students planned the butterfly garden with the Mississippi Soil Conservationists. The Gazebo was designed and built by vocational/technical students of the local high school. A Boonesville teacher wrote lesson plans for the butterfly garden, which are used by other Boonesville teachers. Through Consortium funds, the students were given a minds-on, hands-on opportunity to reinforce many of the skills they learned in their high school. This project is currently phasing out.

The Consortium agreed to provide services in three areas:

1. Broker resources for an outdoor classroom for nature study.

2. Contribute to the design and implementation of an outdoor classroom for nature study.

3. Provide resources for the development of lesson plans related to the use of the outdoor classroom for teaching special topics in science.

Activities:

• 2/10 - 14	Hilton Head, SC	District personnel, administrators, and teachers participated in the TAAMMS Reunion as Academy members or guests
• 3/10 - 14	Charlotte, NC	Administrators and teachers of the Hialeah feeder pattern participated in the Meaningful Math Conference

The Eastern South Carolina Partnership
Berkeley-Dorchester Hub, Moncks' Corner
Bamburg-Calhoun-Orangeburg Hub, Orangeburg

In December of 1998 the Consortium began exploring the establishment of an intensive site with a regional rather than local perspective. Two SSI hubs in South Carolina, the Berkeley-Dorchester Hub in Monck's Corner, and the Bamburg-Calhoun-Orangeburg Hub in Orangeburg expressed an interest in combining their efforts to better serve the mathematics and science communities in their five-county area and in partnering with the Consortium to do so. Initial meetings between all parties have occurred and the partnership will be developed into an official intensive site during this fiscal year.

The Consortium agreed to provide services in two major areas.

1) The SC program specialist would contribute to the development of a Data Analysis Toolkit intended to help educators understand how to use data when making school and district programmatic decisions. She would attend design team meetings, write a section of the toolkit, and help pilot the materials during hub summer institutes.

2) The Consortium would continue to support the technical assistance needs of the two hubs comprising the intensive site by including the hubs, when possible, in special events (e.g., WestEd's Assessment Training and the Exploratorium Inquiry Institute), and by responding to TA requests, such as the TIMSS-related services already provided to these hubs.

Summary of Activities:

• 3/31 - 4/1	Columbia, SC	Data Analysis Toolkit committee meeting
• 5/3	Columbia, SC	Discuss, format, make assignments (design team)
• 5/28	Columbia, SC	Bring design teams together
• 7/20	Rock Hill, SC	Pilot some Toolkit materials
• 8/4-5	Orangeburg, SC	Technical Assistance to hub feeder pattern - leadership, team building, school improvement
• 8/25-29	Charleston, SC	Seminar for sharing of the first draft of the Data Toolkit with the rest of the community

Appendix G:
Academy Session VII-February 2000

Representative Comments from the Participants' Feedback

A. Meeting Expectations

- The information that was shared during this Academy was very useful, because long-term staff development is what I'm creating with my teachers. As a whole, the Academy has been very beneficial in my professional growth.

- The Academy has provided great opportunities to learn new things and solidify familiar ones. I've been kept abreast of trends and ideas that, in turn, I've shared with others.

- The Academy has the best professional development program in the region I have ever attended. Information has put the participants in the forefront of all that has happened in reform in the last 5 years.

- It is always professionally uplifting to attend the Academy. It is always well organized, structured, and focused. The staff is professional and exhibit expertise in the issues that are presented. I am always motivated to go back and share what I receive with teachers when I leave the Academy.

- I expected to gain insight into the case of inquiry in the classroom along with information regarding professional development and other information. I consider my expectations to be met beyond my expectations.

- The Academy in its entirety has been the single most life-changing event in my life as a teacher. I have learned so much and more importantly changed so much. SERVE has truly given me the wings to fly!!! And perhaps most significant of all it has allowed me to impact over 900 students in the past 5 years. Thank you! Thank you!

- The Academy must continue!!! It is vital support for those of us who are attempting to facilitate change. Change is not easy and without support from someone that knows, change must come. Change can be ugly and may not take place. If our focus is on students then we must change.

- The Academy provided me the opportunity to network with colleagues within the region, through session activities (discussions, pair-share, etc.) and through social activities – promoted by the academy.

B. Continuity of the Academy

- I think it is great to have access to professionals who have shared experiences and hope that there is a mechanism if nothing more than address and job dates periodically. In order not to lose any of the value added to our encyclopedias of professionalism, this maintenance of the Academy network is a must. We have become a family of improving math and science instruction, etc. Would be a shame to dismantle it at this point.

- Do it! This Academy experience is now a part of my core being. They have laid a great foundation for my value system. The Academy has provided diversity in my family.

- This has been the most valuable professional network I have experienced (example: Joan Dawson will be sending the assessments that resulted from our brainstorming session on evaluation for her project). Just as illustrated in our local S/M resource team, yearly face –to – face contact is valuable and enjoyable.

- I am excited about the possibility of maintaining the Academy network, because there is no way I would have had this opportunity otherwise. I think it is great that you all plan on implementing a new network, but I hope we are not totally kicked out the nest (smile).

- I came with mixed feelings, first, it was going to be great seeing everyone again and second, to think this wonderful experience was coming to an end. Please let's keep our line of communication going.

- I am very pleased to have been a member of the Academy. When I started I had my doubts about being in the right place. However, I have grown tremendously both personally and professionally, because of my association with the Academy. I've met with opposition in my school district, because change is hard, but I'll hold on to the dream as I continue to fight for excellence and equity.

- The SERVE Academy has been instrumental in assisting me with tools, resources, skills, and support to help me, help teachers in my district, it is the only organization that I know that nurtures the development of its members.

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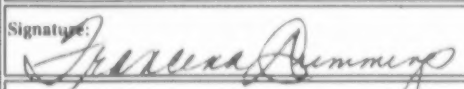
Signature: 	Printed Name/Position/Title: Dr. Francena D. Cummings/Director	
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